

# A N N U A L 99 R E P O R T



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## Letter from the Executive Chairman

**"Nothing is the same anymore...and that's no tragedy."**

*(title of a book by the French sociologist Gérard Demuth,  
Editions Stock, September 1997)*



he world is turning faster...and faster.

Just over a year ago, you might recall, all that anyone was talking about on this side of the Atlantic was the **shift to the euro** and the financial and accounting catastrophies that this move might cause. Well, we shifted to the euro on January 1, 1999... and that was the last you heard about it (except that we anticipate a lot of talk about it again in 2001, when the real deadline approaches – that is when the currency actually changes).

Barely a few months ago, all that people were talking about was the **Y2K bug** and the ravages that it was going to unleash on public services, transportation, nuclear power plants and the everyday lives of corporations and individuals. The fateful night arrived, then the weekend...and, once again, nothing happened.\* Except for a mistaken date involving the change of century and millennium, which will allow us to celebrate them both again next December 31, to the great delight of champagne merchants and fireworks manufacturers.

Two weeks later – since it was necessary to talk about something else – the spotlights were focusing in on the Internet start-ups, the dot.coms, the **Net economy** and the sudden stock-market fortunes racked up by NASDAQ-listed companies. As of last hearing (on April 2), a lot of people are beginning to ask themselves whether this enthusiasm is not as artificial as our New Year's fireworks and will not fizzle out as abruptly as they do.

This time, however, behind the exaggerations of the financial markets, there is a real revolution going on. We are no longer talking about the adoption of a new currency or what precautions should be taken to slip past a somewhat special date. We are talking about the total overturning of the economic environment, about a dizzying acceleration of the processes of creation and distribution, about universal access – now at negligible cost – to tools of extraordinary reach, about the hatching of a fantastic number of new opportunities for corporations and individuals. We are talking about a complete change in behavior and in the rules of the game (calling into question the role of intermediaries in the social contract; the break in the traditional relationship between work and money, where the latter formerly served as recompense for the former; the emergence of security problems the extent of which had been underestimated, etc.).

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*\* Some people have concluded that these risks were invented or wildly exaggerated. They are mistaken. If the shift to the euro on January 1, 1999 went so smoothly, it was because IT specialists – particularly within banks, often assisted by service company experts – worked to prepare for it for over a year. If the crossover to 2000 occurred without damage, it is because at least half of the world's IT experts were mobilized to track down and neutralize every bug they could find. They were so successful that people wound up doubting that there had ever been any real danger at all.*



Of course, this veritable revolution is first and foremost the result of the simultaneous maturing of a set of powerful technologies (the Internet, cell phones, fiber optics, etc.), of the adoption of a universal communications protocol, of miniaturization which is constantly pushing back its boundaries, of the exponential growth of microprocessor power and storage capacities, of the convergence between IT and multimedia technologies, etc. It is also the direct result of the deregulation which has gradually imposed itself upon all the main sectors of economic activity. Finally, whether you like it or not, it is the result of the virtually universal adoption of a lifestyle and growth model validated by the strutting health of the U.S. economy.

In this period of accelerated transition to a “new economy,” one likes to oppose it to the “old” one. If the new economy is showing losses, it’s because it is investing; if the old economy is showing profits, that’s probably because it is exploiting aging activities. The new economy has shareholders who are seeking risk and return on investment; the old has cautious investors who prefer regular dividends. And the new economy would be accomplishing in 30 months or 30 weeks what its predecessor took 30 years to build...

But this somewhat futile debate will soon be moot, because soon there will be only one economy: **the new one**. Naturally, it will be made up of many of these young companies which keep popping up center stage (and not all of which are “created to be sold,” nor fated to die). But also – and above all – it will consist of all the players, large and small, of the “old” economy which, having identified the true stakes of integration of new technologies into the definition of their strategy and into their ways of doing business, having assimilated all of the innovations placed in their grasp by the Internet and used all of the new tools made available to them, will have **carried the revolution** into their own business activities. And, to escort them in the migration of their traditional activities to Internet-related services, they will in many cases have relied on the strategic consulting capabilities and state-of-the-art technical skills that companies like Cap Gemini can bring them.

Since the Cap Gemini Group has been forecasting the advent of today’s transformations for some years now – witness our series of recent Annual Reports – it has had time to prepare itself for change. Throughout its history, the Cap Gemini Group has never ceased to transform itself in response to market developments and the innumerable advances of technology. And it is continuing to do so without slackening its efforts or its investments (as illustrated most recently by the launching of a global unit dedicated to e-Business). But, convinced at a very early date of the scope of the revolution on the horizon, the Group also understood that its traditional ability to adapt would not be enough this time and that it was necessary to build a new “ecosystem” – to use the felicitous expression of John Chambers, chairman of Cisco Systems – made up of more or less close partnerships with companies having complementary skills and which today must unite to meet the demands of the new economy.



Thus, after having (in 1997) eliminated the excess weight burdening its shareholding structure, and after having achieved (in 1998) an exceptional growth which proved the benefits of this unburdening, the Group entered into many discussions, camouflaged under more or less transparent code names (Lambada, Simone, Marlène, Pouilly, Corfu, Médoc, etc.). These sequential or simultaneous discussions took up a great deal of the time of the four Executive Board members, doubtless to the detriment of the management and supervision of ongoing operations. The results at the conclusion of these eighteen months of effort, however, are splendid:

- a broad strategic alliance with Cisco Systems, the world's leading supplier of Internet networking equipment, which will, on this occasion, acquire about 3 percent of the Group's capital;
- the acquisition of Beechwood, a U.S. company whose workforce of 400 specializes in IT services to telecommunications operators;
- partnership agreements with Microsoft, Oracle, Publicis, Mannesmann, Sun Microsystems... and a few others still being hatched;
- lastly, and especially, the acquisition of **Ernst & Young's consulting activities.**

Ernst & Young, which got into information technology through consulting, was the ideal partner for a group like Cap Gemini, which got into consulting through information technology. The first effect of this marriage – to be celebrated at the end of May, as soon as the General Shareholders' Meeting will have approved the contract terms – will be to give the Group a new dimension, its workforce jumping from 39,000 to 57,000 people and its revenues from 4.3 to 7.7 billion euros. Another consequence will be an improved distribution of this business volume, over one-third of which will henceforth be achieved in the U.S. (better matching that country's share of the worldwide IT market), and about 15 percent in France, which will remain the decision-making center of the new group. The happiest effect of this acquisition, however, will be the consolidation within one company of two skills absolutely necessary for the design, development and implementation of great and small projects generated or facilitated by Internet technology: on the one hand, strategic and business consulting; on the other, expertise in IT and telecommunications. Of course, this was in part the case with Gemini Consulting, but never on a large enough scale, especially in the U.S. Moreover, Ernst & Young's lead over its direct competitors in e-Business will make a significant contribution to the transformation of the Cap Gemini Group – until now a “mere” service supplier – into a major **player** in the new economy.

We are giving ourselves six months to achieve a successful transformation. As of January 1, 2001 – the first day of the third millennium – the new Cap Gemini Ernst & Young Group will come into being. And the very next day we will have to sit down and start rethinking the future. Because the world is turning faster... and faster.

Grenoble, April 2, 2000

Serge Kampf

*P.S.: Following Michel Jalabert, Daniel Setbon, Jean-Baptiste Renondin, Christer Ugander, Philippe Dreyfus, Michel Berty and others, José Bourboulon has said goodbye to the Group for a retirement that will have been as much deserved, or more so, than some others. He was both the most senior and last of the companions who followed the long road leading us from the little Sogeti of 1967 to the “global” group of 2000. I understand that every departure is a bittersweet event, but to watch all of the friends who built this group with me leave, one by one, sometimes makes me want to follow them. “Culmination of this odyssey, will the purchase of Ernst & Young convince [him] to leave in grace in May 2000, when his term of office expires?” – questioned Capital in its April issue, which I happen to run across as I am writing this letter. What, me leave, too? I will not do it, because I have been convinced that the Group still needs me, if only to keep an eye on its respect for values, the quality of its image and the fairness of its compensation. But, more than likely, I won't resist the temptation to use this deadline to get a bit of distance. Let's say, rather, “height.” That way, one doesn't give the impression of wandering off; still less, one doesn't feel it.*

## FINANCIAL RECAP 1967-1999

Year	Revenue (in MFF)	Average work force	Per capita revenue (in KFF)	Operating income		Net income, exclusive of minority interests		Number of shares at Dec. 31	Par value (in French francs)	Net income per share (in French francs)	Stock exchange capitalization at Dec. 31 (in MFF)
				total (in MFF)	%	total (in MFF)	%				
67/68 (1)	1.5	22	68	0.13	8.3%	0.06	4.2%	2 000	100	31.7	-
1969	4.2	49	86	0.44	10.5%	0.20	4.8%	10 000	100	22.3	-
1970	6.8	65	105	0.73	10.7%	0.34	4.9%	50 000	100	6.8	-
1971 (2)	26.2	391	67 (2)	2.65	10.1%	1.19	4.5%	50 000	100	23.7	-
1972	39.4	502	78	4.25	10.8%	1.90	4.8%	50 000	100	38.0	-
1973	52.1	647	81	5.84	11.2%	2.56	4.9%	120 000	100	21.3	-
1974 (3)	145.9	1 514	96	10.2	7.0%	5.25	3.6%	135 000	100	38.9	-
1975	226	1 893	119	14.1	6.2%	8.2	3.6%	135 000	100	60.5	-
1976	250	2 033	123	11.5	4.6%	9.4	3.8%	135 170	100	69.6	-
1977	293	2 138	137	15.4	5.3%	10.8	3.7%	340 000	100	31.8 (4)	-
1978	370	2 256	164	32.5	8.8%	15.2	4.1%	340 000	100	44.8	-
1979	455	2 543	179	51.8	11.4%	21.9	4.8%	340 000	100	64.4	-
1980	580	2 753	211	69.8	12.0%	29.5	5.1%	340 000	100	86.7	-
1981	823	3 368	244	86.2	10.5%	43.0	5.2%	442 000	100	97.2	-
1982	1 027	3 514	292	118.6	11.5%	51.5	5.0%	442 000	100	116.5	-
1983	1 404	3 776	371 (5)	140.6	10.0%	72.3	5.1%	540 000	100	133.9	-
1984	1 803	4 238	425	215	12.0%	95.8	5.3%	540 000	100	181.6	-
1985 (6)	2 222	4 910	452	265	12.1%	133	6.0%	3 262 500	20	40.7	4 528
1986	2 907	6 564	443	365	12.5%	193	6.6%	3 534 375	20	54.6	7 634
1987 (7)	4 175	8 908	469	563	13.5%	280	6.7%	3 891 890	20	72.0	5 274
1988	5 816	11 438	508	763	13.1%	402	6.9%	4 570 463	20	88.1	11 266
1989	7 055	12 974	544	783	11.1%	525	7.4%	25 251 046	40	20.8 (8)	12 853
1990 (9)	9 172	16 489	556	1 021	11.1%	623	6.8%	27 939 313	40	22.3	9 639
1991	10 028	17 971	558	724	7.2%	560	5.6%	37 472 775	40	14.9	10 867
1992 (10)	11 884	21 675	548	339	2.9%	(72)	-	41 964 338	40	(1.7)	6 924
1993	11 028	20 900	528	201	1.8%	(429)	-	42 431 755	40	(10.1)	7 417
1994 (11)	10 176	19 001	536	526	5.2%	(94)	-	53 068 478	40	(1.8)	9 022
1995	11 329	20 477	553	678	6.0%	52	0.5%	53 073 228	40	1.0	7 324
1996 (12)	14 820	23 934	619	1 042	7.0%	282	1.9%	60 356 666	40	4.7	15 143
1997 (13)	20 177	28 059	719	1 636	8.1%	762	3.8%	61 198 877	40	12.5	30 202
1998	25 941	34 606	750	2 664	10.3%	1 237	4.8%	69 130 658	40	17.9	62 010
1999 (14)	28 272	39 210	721	3 076	10.9%	1 745	6.2%	77 945 108	€ 8	22.4	128 844

(1) 15-month fiscal period (Oct 1, 1967 - Dec. 31, 1968)

(2) creation of Eurinfor (processing and facilities management)

(3) merger with CAP

(4) doubling of the capital by incorporation of premiums and reserves

(5) following sale of "data collection" activity (365 people) on Dec. 31, 1982

(6) introduction on French Stock Exchange (La Bourse) with 10% of capital (326 250 shares)

(7) following 5 months' integration of Sesa

(8) number of shares multiplied by 5.5 and par value raised to 40 francs

(9) following 9 months' integration of Hoskyns

(10) following 12 months' integration of Volmac and 8 months of Programator

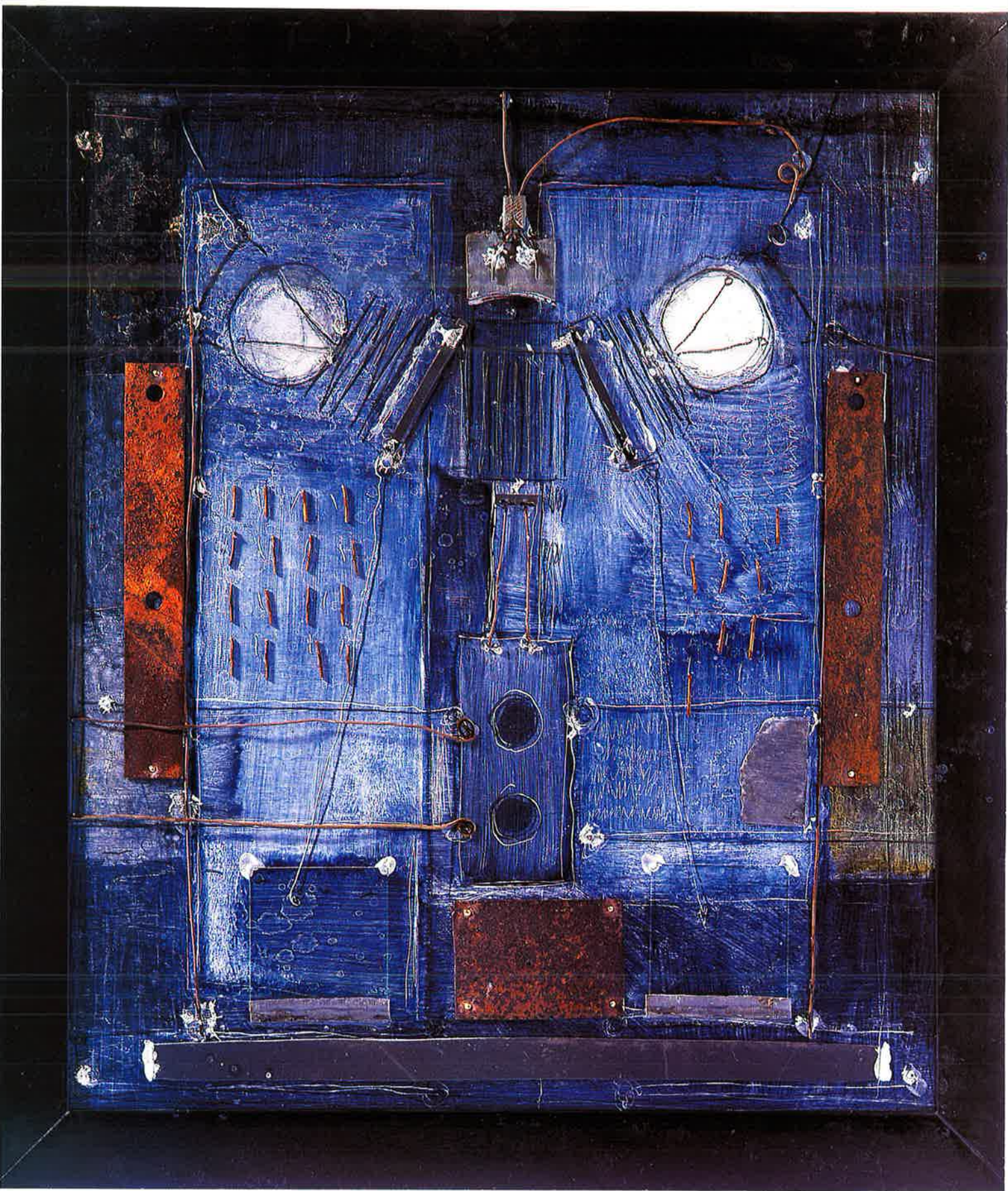
(11) following deconsolidation of German subsidiary Cap debis (FF 1.1 billion in 1993)

(12) following integration of 7 months of Gemini Consulting

(13) following integration of 12 months of the Bossard Group

(14) including the public tender offer on the Cap Gemini N.V. shares closed on August 31, 1999





*Nuclear portrait of an engineer in physics*



## Plea for a new cyber-strategic space

### The “e-” is to strategy as quantum mechanics is to classical mechanics

*Should a corporation have an e-Business strategy by the same token that it has an R&D policy or a human resources policy, or is the new economy shaking up the very foundations of strategic analysis? In fact, the Internet is making traditional strategic concepts obsolete, and leading to new implementation processes within businesses. Rather than contenting themselves with adopting an e-Business strategy, corporate managers must strive to define a new space, one which we have named “cyber-strategic.”*

### The Internet is casting doubt on the conventional methods of market segmentation and competitive advantage.

#### ■ Market segmentation

The distinction between “high-tech” and “low-tech” sectors is growing blurred as technology in general (and the Internet in particular) continues its penetration of every industrial and service sector. A striking example of this is offered by the Accor Group,

which uses technology to interconnect its activities over an extensive reservations network and applies its knowledge of customer needs to develop new offerings. Another is Benetton, which today defines itself as a “just-in-time” logistician capable of responding quickly to the fashion-bound demand for garments.

The very concept of “sector” is being transformed. In the new economy, manufacturing companies such as Ford or General Electric are engaging in services, while service companies are industrializing their offerings in order to better meet their customers’ demand for quality. On top of this, the distinction between “big” and “little” companies is vanishing: size is no longer the only performance criterion. What makes the difference is speed!

#### ■ Competitive advantage

This notion, advanced by Michael Hammer, one of the fathers of “reengineering,” marked the strategic thinking of the ’90s, and encouraged companies to absorb their competitors’ best practices. During a period of economic uncertainty and slow growth, companies were to focus on nibbling away at market share. At the same time, Michael Porter, of the Harvard Business School, suggested a choice between a high-profitability niche strategy and a low-cost, high-volume, low-profit-margin strategy. With the Internet, however, companies like Cisco Systems or Dell are managing to differentiate themselves in their customers’ eyes while achieving the lowest costs on the market and tackling the entire range of customer segments. They have succeeded in processing orders quickly and inexpensively thanks to a network of coprocessing partners.

In a period of strong growth, the main source for the creation of value lies in the development of new services for customers. Professors Chan Kim and René

Mauborgne of Europe's INSEAD view this as the crux of any corporate strategy.

One might also speak of "customer advantage" rather than "competitive advantage," as privileged access to the customer is becoming a scarce resource (and has sometimes served to justify excessive share prices).

**The Internet is casting doubt on strategic analysis based on the principle of allocation of rare resources.**

According to a definition proposed by Peter Drucker during the '70s, the art of strategy is aimed at the proper allocation of rare resources in order to create

sustainable competitive advantages. If, in terms of "rarity," capital was in short supply in the past, the situation has changed with today's new economy.

Virtually unlimited financial resources are available today to anyone who has a good

project; witness the proliferation of every sort of financing initiative, such as venture capital, business angels, incubators, IPOs, etc.

On the other hand, time and access to capabilities are becoming two scarce resources:

**The time factor.** A recent study has shown that, in the area of e-Business, companies that fail to react six months ahead of a competitor have little chance of regaining lost ground. Compaq, preoccupied by its merger with Digital Equipment, failed to see a critical opportunity for development and allowed Dell Computer to win market share from which this latter company is not about to be dislodged.

**Capabilities.** It must be acknowledged that the value of a company is today increasingly based on an intangible capital – we might call it "capabilities" – made up of ideas, individual talents, collective skills and a variety of methods, experience and practices forming a valuable lode of know-how for the human group that comprises each business. The speed of circulation of these capabilities, both in-house (between departments or subsidiaries) and with the outside world (with partners, suppliers, customers, etc.) is itself a strong source of value. Thus we might oppose the old model proposed by the Boston

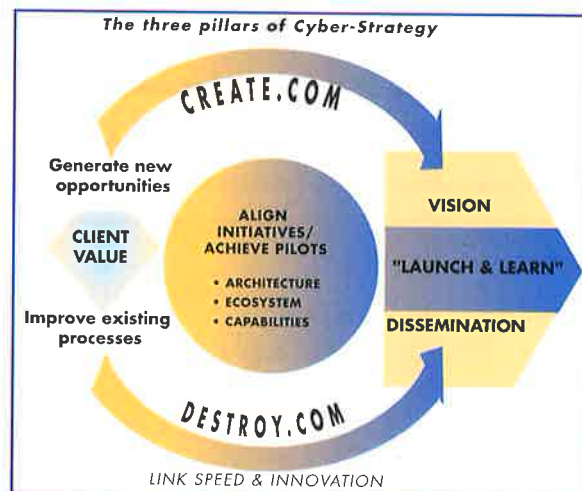
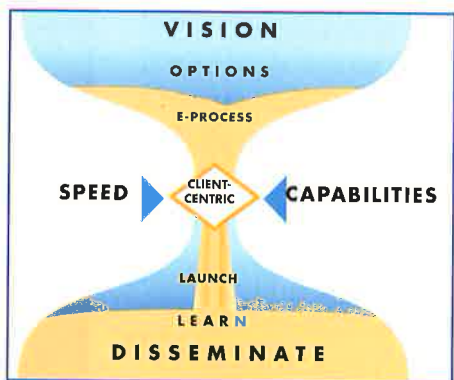
Consulting Group during the '80s, calling for economies of scale, with an economic model based on "economies of capability" in which the creation of value depends on the speed of transmission and growth of these capabilities.

Thus, business intelligence should not restrict individual expertise within a company, but rather link up with a variety of networks of collective intelligence to which it has access via its partners, suppliers or customers. This fact has been grasped by the big pharmaceutical laboratories, which are concentrating their efforts on research and development networks in order to sort out speedily the complexities of the major diseases facing currently facing mankind (cancer, diabetes, cardio-vascular disease, etc.).

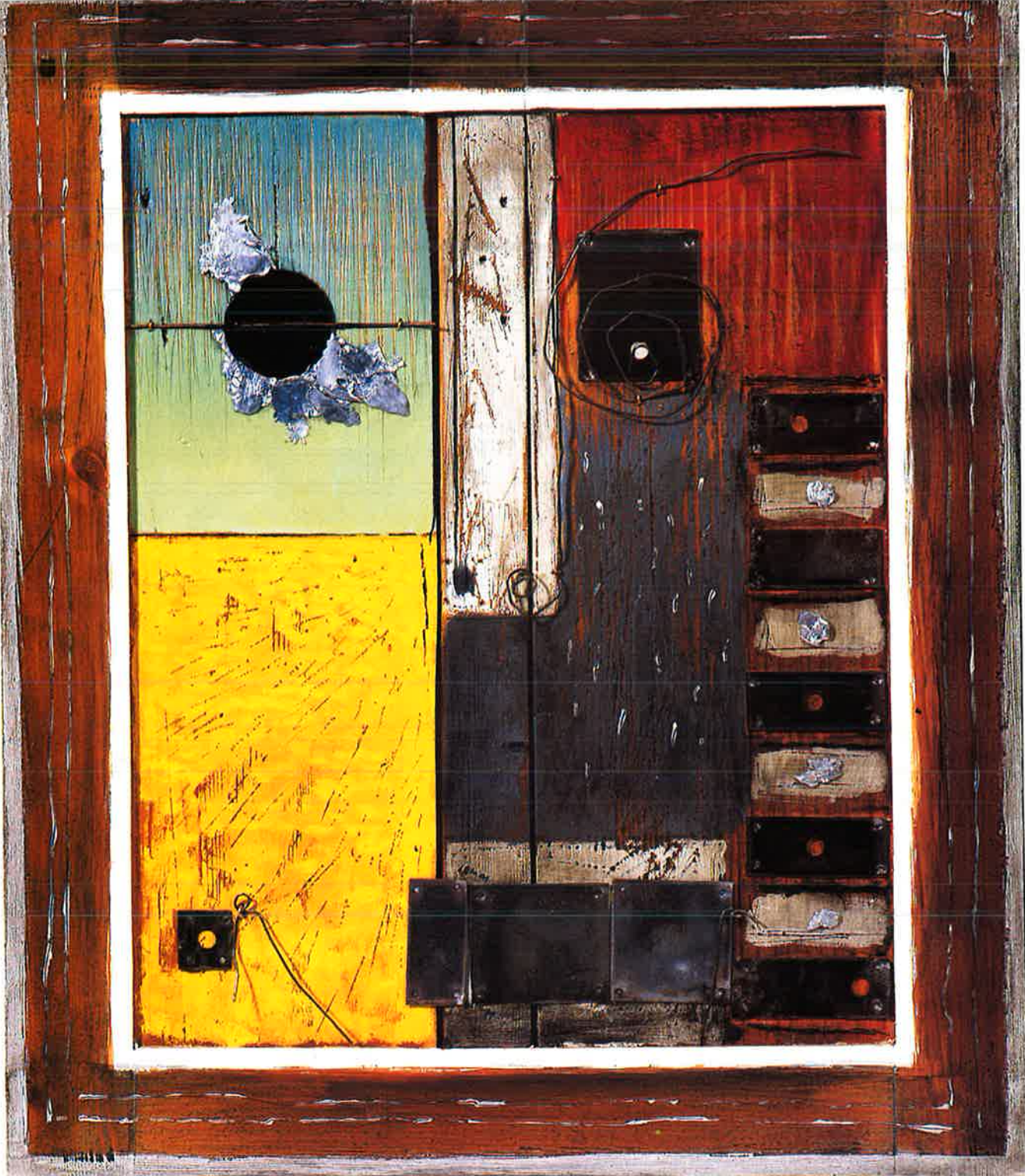
We are also witnessing the formation of veritable "knowledge Keiretsus" allying a company's customers, suppliers and partners, as with the design and construction of the Boeing 777 on a "virtual platform." This is referred to as the corporate "ecosystem," i.e., the totality of a company's strategic partners enabling it to play an active role in the new economy.

**The process of formulation and implementation of a strategy must be tailored to meet these new challenges.**

Slowly but surely, we are now moving from the strategic plan to what we shall call the dynamic of strategic entrainment. Yesterday, a strategy was first defined, then implemented. Today, according to Gary Hamel of the London Business School, the art of strategy lies in the formulation of a daring vision – Ford defines itself as "the company for automotive services of the future" – and the drafting of speedily-implemented tactical options. General management







*Candid portrait invaded by melancholy*

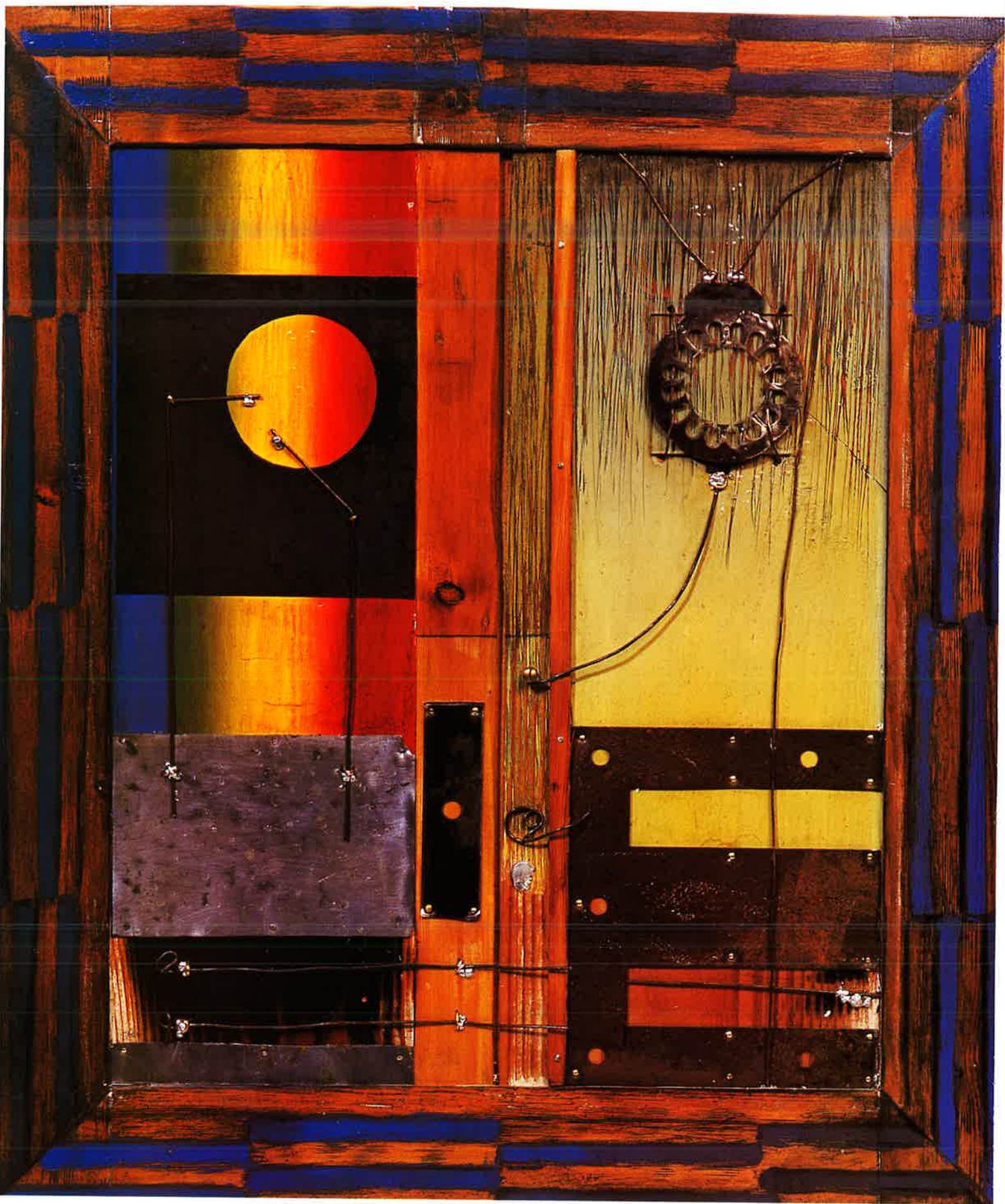
indicates the options that it might adopt or discard at the appropriate moment, depending on market developments, and identifies within the organization those “capabilities” which will help it “conquer new spaces ahead of the next guy.”

Groups like Kingfisher or TF1 (the French private TV channel), launching online sites in less than three months, create the necessary conditions from which to

learn, then to deploy their strategy by in-house diffusion. They thereby take the lead in creating market spaces that touch fresh clients.

This manner of conducting a strategy invites managers to leave the comforts of tools and proven concepts and to turn toward what is new. It also encourages them to depend on intuition, empiricism and pragmatism.





*Metaphysical portrait of a photographer*

**Winning strategies are based on the discovery of new spaces and the potential of the Internet.**

To achieve a powerful cyber-strategy, the customer must be placed at the heart of the economic model. Three angles of attack may be envisaged:

- **Imagine new market spaces.** This may range from the creation of an online site, possibly involving distributors, through diversification into new activities such as banking or online maintenance, to the creation of a digital marketplace. In this perspective, the notion of "value innovation" is employed to reconstruct value chains focused on explication of "customer" value. This is exemplified by the Destroy.com initiative launched by J. Welch, in which every division chief, assisted by a "young Internet entrepreneur," is given 100 days to come up with a development plan redefining his or her activity within the scope of the Internet.

- **Examine each of the company's processes,** making a careful distinction between support processes, which are to be made faster and less expensive, and critical processes, which are to be centered on generation of value for the customer. As an example, take Cisco Systems' integrated logistics. From customer order to delivery, Cisco never has to handle the order physically.

Another example: e-procurement, or online purchasing, which links suppliers and buyers via a global electronic network. This process may also be used to launch a new activity. Chemdex, for example, has evolved into a global biology leader by becoming a virtual purchasing hub, an unavoidable middleman between the suppliers and the world's major pharmaceutical laboratories.

- **Acquire new skills** and new behaviors adapted to the new economic situation. Experimentation alone will make this possible. All of the initiatives proliferating within a company should be reviewed in order to align them with the strategic vision, select the most promising and make them win in less than three months.

A good strategy is founded on three inseparable pillars:

- seizing fresh opportunities as they appear;
- being faster, cheaper, more customer-oriented;
- experimenting to become a full-fledged player in the new economy.

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**The network economy offers a new space of freedom to corporate customers, shareholders and employees.**

For companies, however, this space has its limits, that limit being their ability to attract young members of the emerging business elite who aspire to careers as Internet entrepreneurs.

In fact, 35 percent of MBA students at the Harvard Business School's Class of '99 decided to join Internet start-ups, and over 20 percent of first-year students will not return to the university after their summer internships, preferring the prestige of creating an Internet start-up to that of a Harvard diploma.

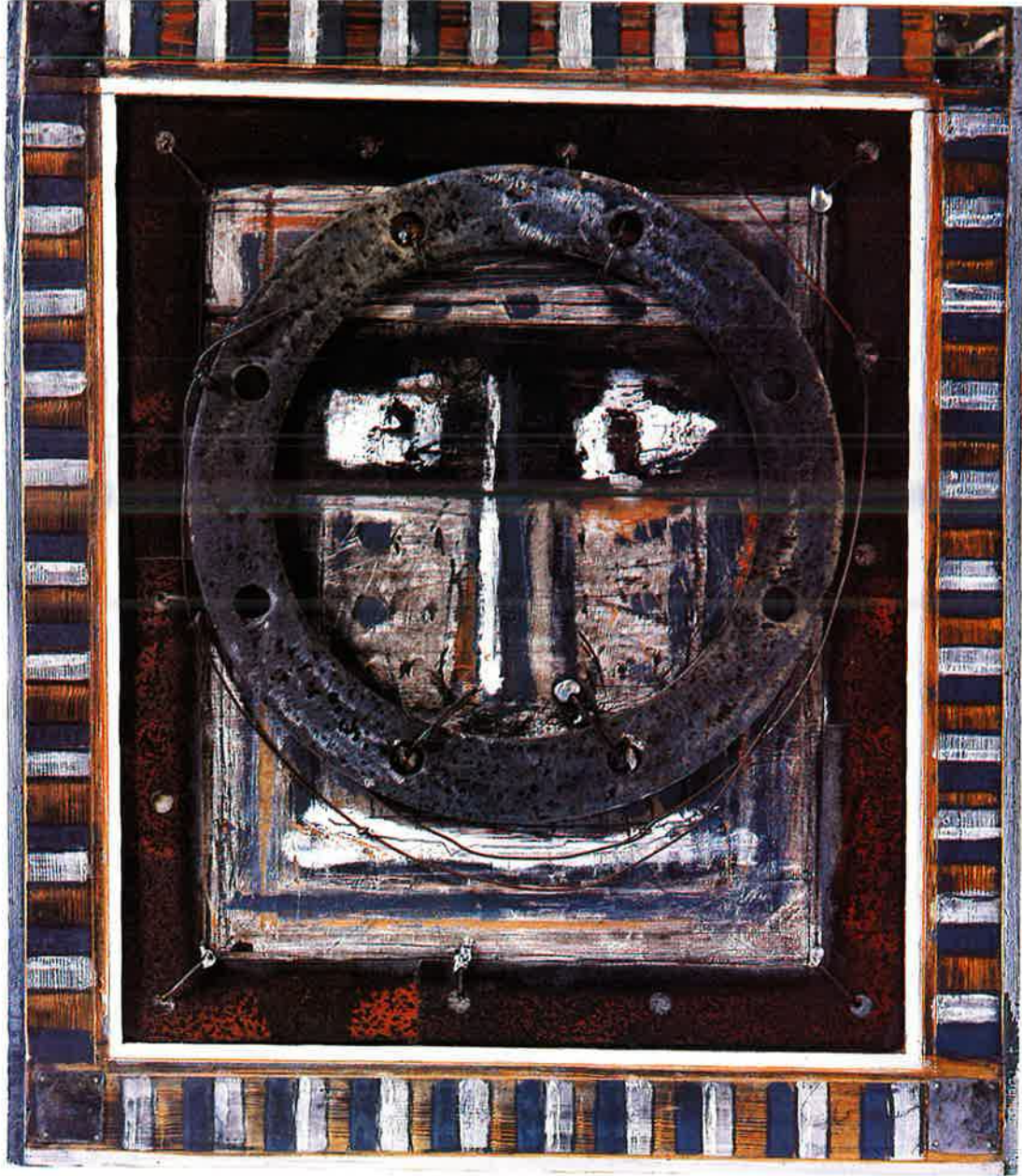
The spirit of enterprise is back; that's the good news. But the stakes are high for big companies. Will they be able to adapt to these new constraints and attract these new entrepreneurs, through incubators or other specially-designed entities capable of combining speed and innovation?

By placing the end customer at the heart of your economic model, by mobilizing young Internet entrepreneurs, by creating added value, are you not moving toward a new "virtuous alliance" between your customers, your shareholders and the employees of your company?

This is the challenge facing corporate managers who wish to create the conditions for profitable growth in this new world, the main guarantee for their future... and their present.

**Richard Seurat & Jean-Manuel Bullukian**  
**E-Business Unit**





*Portrait of a dreamer*

## Points of view

# The dot.coms: today's fad or 21st century corporate model?

*Who doesn't have an opinion on these start-ups known as "dot.coms"? Viewed as pioneers out to conquer the El Dorado of the new economy, they are tapping into a substantial mass of private and institutional capital.*

*The young entrepreneurs running these companies have become hallowed icons for many fresh graduates with dreams of a quick fortune. Confronted with the dot.coms, real-world companies are finding themselves relegated to the rank of exhausted dinosaurs who must either evolve in a hurry or face extinction.*



## Just what is the reality behind the myth?

### ■ In the beginning there was technology

To begin with, the price of technology is what makes it available to the greatest number of people. We are now witnessing the doubling of processor power every 18 months, at constant price (Moore's Law, Intel). "Intelligence" can now invade any everyday object, from our mobile phone to our kids' toys. Technology is now within everyone's reach.

Next come the "pipelines." The growth of infrastructures, the advent of fiber-optic and mobile networks, the compression of digital data (such as ADSL) permit the transmission of megabits (images) through channels which heretofore could carry only a few kilobits (voice). According to the visionary technologist Gilder, the passband is tripling each year. A single phone connection now gives access to the worldwide network of knowledge.

And, above all, standards. Not that long ago, it was necessary to define dedicated standards just to communicate data within a single company (ERP) and between companies (EDI). Today's IP (data transmission), HTML (presentation) and XML (content) standards enable anyone anywhere in the world to communicate digital data in any desired form. Without technology, the fabric of interactive communication – the very foundation of the new economy – would not exist.

### ■ Genesis

As pointed out by Bob Metcalfe, inventor of the Ethernet, the overall value of a network increases by the square of the number of its members.

In less than a decade, the original network of 130,000 scientific and military computers has become the globe's foremost interactive communications tool, whereby data, images and voice travel between 3.6 million sites using over 25 million computers in every country in the world.

In the beginning, a few Internet sites emerged from the academic world, their goal being to facilitate universal access to knowledge. It was a dream of an open, free world. In 1994, Marc Andreessen (former University of Illinois research group leader, a creator of Mosaic) and Jim Clark (a founder of Silicon Graphics) designed the first browser in order to find their way among these sites. They set up Netscape, the first start-up of the Internet.

Facilitated by the first ISPs (Internet Services Providers) such as AOL, trailblazing site hosts and communities of Web users emerged rapidly. As of 1995, with a million connected computers, the stage was set for the appearance on the Net of the first commercial adventurers. They were assigned Internet domain names terminating in ".com" to identify them as businesspeople.

### ■ The dot.coms reach the consumer

Telecommunications operators, smelling a new source of consumer revenue, very quickly began creating Internet access portals. In turn, technology companies foresaw an immense demand for network infrastructures and associated computers and software.

Soon the executive committees of big banks, tourism and transport companies, distributors and media enterprises were drawing great pride from their magnificent sites, subcontracted to Web design agencies. Who was paying any attention to the kids who were creating AOL, Yahoo, Amazon, e-Bay, e-Trade or e-Toys?

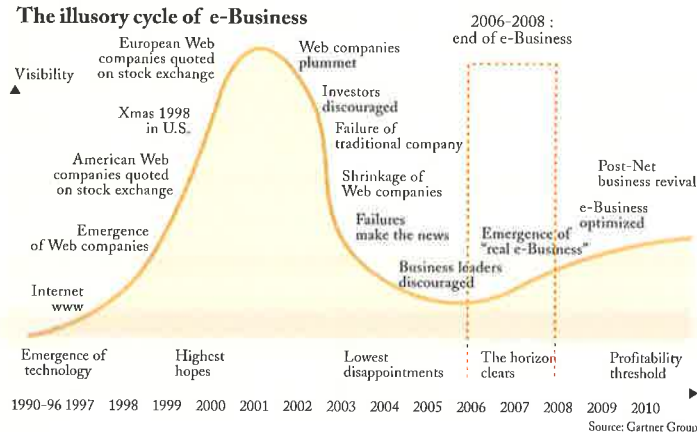
Working at astonishing speed, these "kids" put the thoughts of the new economy's gurus into practice, leaving the leaders of the former world in a state of self-doubt. According to Forrester Research, the new economy today represents 12 percent of the global economy.

Today, an AOL can buy up a Time Warner for \$190 billion and become the media leader of the world. Yahoo is the world's biggest department store (80,000 merchants, 13 languages spoken) – a "portal," in Internet terms – where the big brand names come to display their wares. Amazon is the world's leading mail-order firm, with a catalogue extending far beyond books (2.5 million titles) and CDs, for a total of 18 million products.

Taking their lead from this model, e-Trade and hundreds of other online brokerages have revolutionized access to stock markets all over the world, both through affordability of their fees and the quality of their information, bringing in their wake millions of day traders (4.3 million in 1998, 20.3 million forecast for 2003).

And day traders, followed by their institutional colleagues, have generated valuations never before achieved by such small companies, enabling them to grow very swiftly and – thanks to stock options – attract the best available talent.

### The illusory cycle of e-Business



Over the past eighteen months, thousands of dot.coms have been created by youthful entrepreneurs, subsequently joined by more experienced people. A plethora of service dot.coms has emerged to assist the marketing dot.coms, offering them technological tools (Voilà, Albert), marketing support (DoubleClick), logistical resources (UPS Online), banking services (Cashsecure) and customer impact measurement (NetValue). And a new type of service has been created: the incubator, a dot.com which helps other dot.coms get on the market faster. More than 600 incubators have been created in the U.S. since 1998, while 30-odd have emerged in London during the last quarter alone.

Yet in areas where the advantage of being first on the scene is decisive, we are witnessing the appearance of innumerable clones. In areas where only an increasing need for working capital due to very strong growth might justify losses, people are financing companies showing actual structural losses.

In areas where any mail-order retailer knows that, after marketing, the supply chain is the key to success, people are financing dot.coms which obviously have no experience in this field. Worse yet, in areas where the Internet is supposed to facilitate consumer purchasing, people are financing companies so hard to find that no Web surfer would ever revisit their sites.

While only four dot.coms quoted on the NASDAQ had gone bust at the end of 1999, the vast majority went into the red. The Gartner Group predicts that 75 percent of the dot.com projects launched to date will be unable to keep their heady promises.

It is not enough to be a pioneer heading off to discover that legendary gold mine. One thing is certain: without pioneers, there would be no California, the cradle of today's new economy.

### ■ The new dot.coms of the B-to-B market

While the Internet Business-to-Consumer (B-to-C) market is projected to grow from \$22.8 billion in 1999, to \$180 billion in 2003, the corresponding Business-to-Business market is growing at an even more rapid rate (\$1 300 billion in 2002, according to Morgan Stanley Dean Witter).

Technological standards enable companies to buy, sell and co-develop their products online. Even General Motors, with its \$87 billion equipment procurement budget, cannot impose its marketplace on its suppliers; all companies will have to congregate around market niches.

Following the examples of PlasticNet or VerticalNet (with its 55 sector-oriented portals), the new dot.coms are true spaces of continuing exchange.

But the dot.coms of the future, representing massive economic stakes, will be the creatures of big companies. Among many others, British Telecom and Chase Manhattan Bank are in the process of launching trans-sector market sites for all of their products, with the exception of those related to production flows. In so doing, they are attacking a market on the order of 1.5 times larger than the GNP of the country in which they operate. Other consortia are being formed on a sector basis to profit from the 20 percent productivity growth promised by the use of tools offered by new technological stars such as CommerceOne and Ariba, joined by Oracle and SAP.

#### Those who are succeeding

- *Ecosystem:*  
Ex. Cisco Systems: a myriad of strategic partners for further development
- *Speed:*  
Déjà.com: 12 weeks from concept to site launch, financing in 48 hours
- *Attract the best people:*  
Cisco Systems: "The key to our profession is to employ talent"
- *Direct link*  
between risk and reward
- *Innovative thinking:*  
"Yesterday, entrepreneurs started up a business; today, they invent business models" (John Doerr)
- *The customer:*  
Resolutely customer-oriented vision and leadership
- *Philosophy of adaptation:*  
Evaluate and manage options
- *Agility:*  
Organization permitting immediate execution

#### Those who are vanishing

- *Constrained thinking:*  
Ex. insufficient number of partners, limited geographic perimeter
- *Clone mentality:*  
"me-too" thinking is the route to mediocrity
- *Rational, long-term planning:*  
over-emphasize wishes to predict the future rather than "take stock and adapt"
- *Fear of risk:*  
no chance to learn without taking the leap
- *Advertising effect:*  
media-based strategy without genuine customer service content
- *Arrogance:*  
"A creator can't be expected to do everything"





*Portrait of a Greek soldier*

### ■ The future of the dot.coms

As of the end of 1999, big companies worldwide had understood both the opportunities and the threats of the new economy. Observing the example of Levi Strauss, which shut down its online sales site at the end of 1999, or the problems experienced by Boo.com, they learned that the answer did not lie simply in an online sales catalogue for their products, no matter how sophisticated.

While there are still plenty of opportunities for individuals to create successful dot.coms, the future should smile on the big companies which have managed to acculturate themselves to business on the Internet. Toys'Rus, strongly criticized for its management of the crisis created by the 1995 arrival of e-Toys, had almost caught up with its competitor in 1999, with the launch of Toys'Rus.com. And Barnesandnoble.com was the fourth most-visited site

during the 1999 holiday season, with over 1.5 million visitors.

The entire inter-corporate market is also destined to change dramatically under the influence of specialized dot.coms. Cisco Systems and Dell are proving this point on a daily basis.

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The Darwinian evolution of companies is going to accelerate, the sole survivors being those which have learned to move fast, rethink their leadership, revise their ecosystem and transform their business.

But this is not going to be the common lot, because people change more slowly than technology.

Pierre-Yves Cros  
Gemini Consulting





*Portrait of an aviator in 1916*

## Points of view

# Nine principles for mastering Internet systems

*Today's information technologies are intimately bound up with our lifestyles and working methods. Advances in microprocessor, memory and*

*storage system technologies make it possible to build increasingly powerful and inexpensive hardware. PC performance levels will be multiplied by a factor of 1,000 between now and 2010. This low-cost performance, allied with compression techniques, make it possible to digitize*

*sound and images, opening the way to multimedia and knowledge management. Assembly and integration of software components is increasing the productivity and reliability of software developments. The gradual introduction of touch and voice command is transforming man-machine dialogue into a more natural process. Above all, however, the wide acceptance of Internet technologies and standards is helping us build worldwide networks linking up tens of millions of computers. There were 1.57 billion Web pages accessible at the beginning of 2000, and this number is rising at a rate of three million each day.*

### ■ The Internet is changing the picture

As with the Roman Empire's aqueducts or the railroads of the 19th century, networks have always been sources of progress and innovation. The 20th century's telephone, TV and satellite networks have overcome the bias of time and space. These networks, each built to optimize the dissemination of a single medium, were remarkable engineering exploits. Their development was necessarily slow, however, because any change had to be integrated into the entire hardware installation of the existing network. The rules of this game, however, are being totally changed by the development of digital technologies. Dedicated networks optimized for a single medium are being replaced by a single infrastructure reduced to its most basic role: connectivity. Based on information technologies and Internet standards, this infrastructure is already letting us connect anything to everything, anywhere. No doubt about it: the global infrastructure being installed around Internet-connected computer networks will have a greater influence on our society than that of all prior networks combined.

The Internet infrastructure is revolutionizing the picture, then. It is eliminating interdependencies by distinguishing the communications infrastructure from the applications that use it. In this process, two highly-competitive worldwide markets are being created: one

for furnishing global connectivity, another for content and services. This new competition has already resulted in a reduction of the cost of connectivity by a factor of several thousand. With cable or ADSL access for desktop computers and GPRS and UMTS for mobile units, the individual user will have a permanent, high-speed connection to the entire world at a cost of about \$50 per month. Beyond the reduction of connection cost, however, this new infrastructure is also encouraging innovation. New applications and services can take advantage of worldwide connectivity without having to invest in communications infrastructures.

### ■ Toward one billion online users

About 300 million people are already online on the Internet and this number will doubtless exceed the billion figure by 2005. This market – a billion users accessible at virtually no cost over a single Internet link – is the mother lode of the 21st century's own gold rush. The struggle for market share in this new economy is taking place over key areas such as access portals, financial services and retail sales. Current stock-market prices give a good idea of the hopes that have been raised.

A less obvious but equally important fact: these billion users will influence the architecture of corporate IT applications. All of the technological innovations and new developments in IT are going to be passed through the sieve of these billion customers, experimenters and developers. A Darwinian selection process is going to replace the decisions made by committees often biased by politics or incompetence. This formidable worldwide cooperation has already produced the best software (in the programs that make the Internet run), has imposed choices such as MP3 for music distribution, and will perhaps manage to ally all the existing proprietary Unix packages under a single Linux banner. The time in which a supplier could defend his "empire" with proprietary standards is a thing of the past.

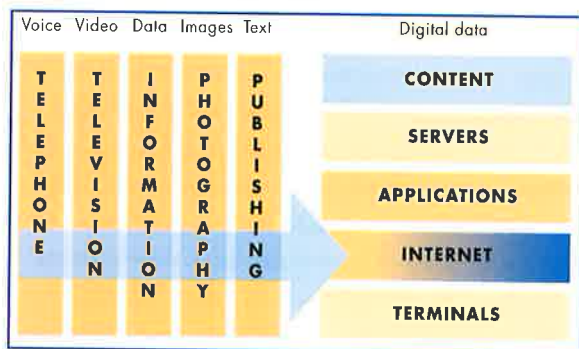
### ■ A new architecture for corporate IT applications

Integration of the Internet into an overall view of the evolution of corporate IT systems is placing decision-makers at the center of a set of conflicting



concerns that must somehow be reconciled. How do you improve service quality and reduce costs while implementing a speedy migration to Internet technologies? How do you manage changes in existing IT staff while avoiding personnel conflicts? Cap Gemini has defined nine basic principles to help companies deal with this technological change. Application of these principles should enable companies to make the most of these new technologies in an era of rapid evolution. These principles may be used either as recommendations during the definition of architectures for new functions or applications, or as tests for evaluation of current systems.

### 1) *Internet is the rule of the game*



The deployment of the Internet to 300 million users in five years is concrete proof of the effectiveness of this technology. Deployment of the Net has taken place far more rapidly than radio, TV or mobile telephony. Installation of a corporate Internet infrastructure is thus a prerequisite for the benefits offered by the Internet itself, whether for outside communications (e-mail, Web server), for internal company management, knowledge management or for customer and supplier relations. This infrastructure includes not only an IP (Internet Protocol) network, but also access to HTTP (HyperText Transfer Protocol) applications using an HTML (HyperText Markup Language) browser and exchanging data in XML (eXtended Markup Language). The advantages to the company are immediate: a single infrastructure for all IT and multimedia applications, standardized workstations independent of central systems or local servers and immediate technical deployment of new applications.

### 2) *Simplicity of use*

The Internet browser has become the universal interface, allying the point-and-click simplicity of hypertext with the user-friendliness of multimedia documents. Browser access to corporate applications offers numerous advantages, two of which are potential gold mines: elimination of lengthy, expensive software installation on workstations; and universal access to all company applications, independently of systems used, from standardized workstations. This alignment along public standards simplifies employee training and cuts the cost of software and hardware. Integration of all technologies (text, images, audio, video) in a standardized workstation speeds up the deployment of innovations such as IP telephony or voice input/output.

### 3) *Component assembly*

The hopes aroused over the past ten years by "object-oriented" technologies have not been speedily fulfilled. The principle behind the "object" is to dissociate its implementation from its application. This principle is even more advantageous for implementation of applications if this process is limited to the assembly of existing objects. This, however, requires a common infrastructure for object implementation and use. Up to now, proprietary infrastructures have fragmented the object market. Furthermore, the reuse of data-manipulating objects has been seriously hindered by the lack of a common language for data representation. But the Internet is changing the picture in this field, too. There is now a single architecture for applications (HTTP/IP/XHTML) and a meta-language for data (XML).

Note should also be taken of the advent of a new profession: the "Applications Service Provider" (ASP). Systems integrators will continue to assemble components to implement applications. These applications will be hosted at ASPs' "server farms," with users paying for access to these systems, freeing them from purchases of the software, hardware or operating services.

### 4) *Applications as a network of services*

In old architectures, the client workstation was linked to the application server. These applications, which had to handle any situation and serve all users,

gradually grew complicated to use and upgrade. To check the weather, buy a plane ticket and reserve a hotel room required successive connections to three different systems, sometimes using different terminals. The Internet browser eliminates this dependence and makes it possible to integrate transparently, at the user's workstation, information or services originating simultaneously from several servers. Today, design of a new application consists of the assembly of services (directories, customer files, orders, e-mail, etc.) which are simpler to design, more stable than applications and which can be modified independently from one another.

#### 5) Customization

This is a result of the three preceding principles (simplicity of use – component integration – network of services). Users may assemble services by selecting, from among all possible functions, those which are useful for their work. This customization, often designated by the name “My...,” is offered by all of the major Internet access portals, such as MyYahoo or MyCNN. As early as 1994, Cap Gemini installed Galaxy, a global knowledge management system, on its intranet. But Galaxy's very success, measured by the exponential growth of its contents, made user access very difficult. As of the beginning of 1999, MyGalaxy was launched, enabling each employee to create a personal view of the knowledge management system adapted to his or her own areas of interest. In just a few months, this system was being spontaneously used by over 12,000 employees without any particular internal marketing actions.

#### 6) Reuse existing systems

In the framework of transition to the Internet, it is neither technically nor economically feasible to try to rewrite legacy systems defined, developed and optimized over, say, a decade. The thought of upgrading them into Internet technologies is often illusory. This notion assumes a preliminary harmonization of the various applications, necessitating the modification of data and processing architectures. IT experts find themselves enmeshed in



*Happy portrait of Homo sapiens sapiens in tears*

technical areas sometimes imperfectly mastered and disturbing in terms of changes in their skills and jobs. In such cases, IT managements have to deal with complex situations involving heavy investments, with the danger of standstills and conflicts. It is often far preferable to develop new applications using new technologies and then to organize the upstream connection to the information system. “Heavy” legacy systems remain unchanged in the short term. The new applications are immediately available. This solution has often been successfully implemented in large organizations.

#### 7) Set up universal access

HTML, with its successor XHTML, has become the single presentation language which has established the Internet's success among users. Contrary to certain beliefs, this uniqueness is going to produce a multitude of different terminals adapted to specific uses or functions. The PC, at present virtually the sole access device, will be supplemented by the mobile phone for information, e-mail or payments. For example, the Cap Gemini employee directory, its e-mail system and



its knowledge servers have been directly accessible from mobile phones since 1999. Internet browsing via the TV set will offer weather reports, stock market prices or supplementary programming by TV networks. While we might doubt the commercial success of a refrigerator which sends out refill orders via the Internet, a lot of equipment is going to be linked to the Internet to facilitate surveillance, trouble shooting or upgrading.

#### **8) *Anticipate network traffic loads***

The Internet traffic on MCI Worldcom's backbone is doubling every 100 days, for an annual growth of 1,000 percent. In 1996, data traffic accounted for less than 10 percent of worldwide telephone traffic. By 1999, Internet traffic alone exceeded telephone traffic, and will be five times greater in 2002. The capacity of optical fibers is doubling every year, an advance much more rapid than for microprocessors, which take 18 months to double their performance levels. A single fiber-optic cable is capable of carrying all of the world's telephone traffic. Thus the necessary capacities are ready and waiting, especially since xDSL technologies will make it possible to increase installed phone line speeds by a factor of at least 100. The architecture for future IT systems will thus be based on a generously dimensioned and reliable access network. This will make it possible to lay stress on the uniformity of data, which in turn results in simplification of applications architecture and savings in the cost of storage and backup.

#### **9) *Create confidence through security***

When Julius Caesar sent orders to his generals, he had no confidence either in the safety of the Roman highway network or in his messengers. So he encoded his messages, using a letter-substitution technique. Like the Roman highways, the Internet offers connectivity, but not security. To secure data means to guarantee the mutual authentication of the communicating parties so that one is sure of one's correspondent and of the integrity of communicated data, which may have been accidentally or intentionally modified en route. It is also sometimes necessary to guarantee confidentiality, to prevent data from being read by unauthorized systems or individuals. All necessary technical components are currently available for guaranteeing a level of security that is driving certain nosy governments wild.

The main obstacle facing the rapid dissemination of these technologies is the "Magenot Line" mentality inherited from the old proprietary systems, symbolized by the installation of firewalls which are as expensive as they are ineffective. Users, too, have not yet acquired the necessary reflexes. They carefully lock their cars, which are accessible to a few thousand people at most, but leave their computers open to hundreds of millions of strangers on the Internet!

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#### **■ A parting word**

The multimedia revolution is shaking up the existing group of market players. In light of these technical upheavals, it is easy to foresee that mastery of the Internet infrastructure and mastery of content and services are going to be the high-stakes games of the next decade. This transformation will require profound changes in the way that we store and access information, in the way that we conduct business or work, or the way that we design and build products. There is a serious danger that people will continue to do the old along with the new. By avoiding the biases of prior networks, optimized for a single content, the Internet has generated a market niche for new concepts which take advantage of abundant and inexpensive connectivity. This infrastructure creates a key boundary between a communications medium and the applications built on this medium. This is a very special boundary, as it permits both markets to operate in accordance with their own rules. With the new digital technologies, the advantage has shifted toward flexible design which permits the rapid exploitation of unforeseen opportunities.

**Jean-Paul Figer**  
**Innovation and New Technologies**



*Pyromaniac portrait of a fireman*

## Points of view

# A new alliance between the pharmaceutical industry and the patient

*he patient, viewed either as a clinical or economic subject, has long been relegated to a passive role by medical professionals and HMO managers. Today, thanks to*

*increased availability of medical information, particularly thanks to the Internet, better-informed patients are again taking charge of their health. This development is disturbing to the medical profession but constitutes an opportunity for the pharmaceutical industry, which is in a position to weld a beneficial alliance with its true customers.*



## ■ Patients excluded from decision-making

The operation of the health sector differs profoundly from one region to another in the industrialized world. Still, whether the private sector or the government is at the helm, the patient is far from the center of a complex, fragmented system. This is why the pharmaceutical industry has traditionally looked upon the health authorities and doctors as their main customers.

The growth model for the pharmaceutical industry following the end of World War II was thus a simple one: labs concentrated their efforts on the discovery of therapies to fight illnesses for which no effective treatment was yet available. Once the drug had been discovered, they sent out an army of medical salespeople to convince doctors of their new product's merits. This model worked as long as the field of unsatisfied therapeutic needs remained extensive and as long as the economy was capable of financing the growing cost of health care. At the beginning of the '90s, however, innovation had become harder to achieve, at the very moment that the economic recession was encouraging better control of health care spending. This triggered a wave of major restructuring within the pharmaceutical industry, aimed initially at economies of scale to offset the loss of profitability of low-innovation products and the skyrocketing costs of new product development. An additional effect: the patient was even further marginalized in the name of economic constraints.

## ■ An underestimated freedom

During this entire period, health-system players overlooked the patient's real potential power. While the patient may have little knowledge of therapeutic options, he or she remains free to refuse to accept illness, to fail to seek out (or not to follow) its treatment. By bringing a perceptible, comprehensible innovation to the attention of patients, pharmaceutical labs can communicate directly with them. According to a recent FDA study, 27 percent of American patients visited a doctor as the result of seeing an ad or commercial. Companies that have grasped the importance of the patient's role have managed to keep up a remarkable level of profitability while avoiding takeover and merger.

Schering Plough spends more than \$90 million annually in the U.S. on advertising, and has made 40 million Americans aware of the fact that they suffer from allergies. This is not only to publicize their leading allergy remedy, Claritin, but also to help patients with an illness that is often misunderstood in that hay fever is frequently mistaken for the 'flu.

Although somewhat more discreet in its advertising, Lilly Laboratories has held on to its leadership in the insulin field by offering much more practical, less painful syringe units to diabetic patients.

And, thanks to Viagra and the advertising campaign accompanying its launch, Pfizer offered a treatment for a symptom that many patients found traumatizing and which doctors had too long ignored.

## ■ Patients take charge of their health

Direct communication by pharmaceutical labs to patients represents a revolution in the history of medicine. For the first time, patients are not shunted aside; they are not addressed in Latin or some other remote, unclear terminology.

Better informed by magazines, TV commercials and – above all – specialized Internet sites, the patient has begun to intervene in the doctor's therapeutic options. Publicly-accessible medical information bases, initiated by patients' associations and continued by private enterprises, have rapidly proliferated on the Internet. In the U.S. in 1999, health outstripped pornography as the Internet's leading "center of interest." Today, we are talking about a veritable service offering developed by the pharmaceutical companies.

This trend troubles doctors, who are observing that their patients are now in a position to react to a diagnosis or proposed therapy in an informed manner. Pharmaceutical labs are no less perplexed, despite the fact that this phenomenon works to their benefit.

To begin with, experience demonstrates that patients are quicker than the medical profession in adopting new therapies. More direct patient access to information is accelerating life cycles of pharmaceutical products. New drugs take off much more rapidly, to the detriment of established medications. The desire for increased innovative capability, and to make research more productive, in part explains the current wave of corporate mergers.

Next, patients have demands that can be met by pharmaceutical companies but which are not necessarily even acknowledged by doctors. Thanks to support from seropositive patients, for example, a Swiss lab was able to win approval for a medication designed to combat loss of muscle mass, while many physicians did not view this consequence of the illness as a critical component within a pathology showing other, much more serious features.

### **A growing role**

Having acquired access to information, patients are going to exercise their power, forcing other players in the health system to conform.

In view of the proliferation of information, patients will gradually turn to a handful of information providers who have demonstrated their reliability. Pharmaceutical companies that have managed to acquire an image of credibility and ethical behavior will be in a position to play a significant role in the provision of medical information. After all, aren't they among the most advanced sources of knowledge in their chosen therapeutic fields? Unfortunately, pharmaceutical companies today are relatively unknown to the public, and it is urgent that they invest in the promotion of strong umbrella brands in order to extend their customer relations long-term beyond specific products. These brands will enable labs to back up the credibility of their message within the general marketing uproar.

Patients are also going to influence research and development. The role of patients will be even more critical during evaluation of the potential of new molecules. Specifically, "self-diagnosis" medications – that is, drugs whose need may be identified by an educated patient before consulting a doctor, thus possibly influencing a future prescription – will be a favored target for the pharmaceutical industry.

The Internet provides patient communities with the resources needed to organize themselves, centering particularly on chronic or critical illnesses, and thus to become discussion partners with clout in their dealings with the other players in the health care system. For example, one might envisage patient groups participating in the setting up of clinical tests by helping to recruit trial subjects, by opposing research that they consider dangerous or useless or by directly lobbying governing health care agencies.

Patients will also play a more significant role in the economic management of health care. On the one hand, informed patients will reject economic limitations imposed upon them if they fear for their health; on the other, payers will be distressed by patient-controlled consumption. This will probably be the point at which payers and patients come to an agreement making the latter participants in the economic management of health care. In the United States, for example, some employers will stop entering into group contracts, preferring to subsidize individual coverage negotiated between employees and insurers. Here, too, the Internet will enable employees to compare and select their made-to-order coverage without burdening the employer with added administrative costs.

\* \* \*

Thanks to technology, patients are in the process of asserting themselves as full-fledged players in the health care system and, on this basis, are striving to redefine their relations with other participants. Far from having a braking effect, this development will enable pharmaceutical companies to establish a customer alliance based on increased innovation, an improved understanding of patients' real needs and an enormous communications effort. This, and only this, is the price of growth.

**Jean-Marc Neimetz**  
**Life Sciences Group**



## Drivers of change for network services providers

*Though the telecommunications industry continues to provide unprecedented opportunities for network services providers, the*

*industry also presents challenges at an increasingly accelerated rate. Over the past few years, network services providers have faced a dramatic change in the nature of their business, in the level of competition they are experiencing, and in the network technology over which they provide services. At the same time, due to increased competition and more advanced end-customer monitoring technologies, their customers are becoming increasingly sophisticated in their demands and less loyal to their suppliers. Competition is now coming from all sides and the network services providers are under real pressure not only to reduce costs but increase service and richness of application. The network for narrowband voice services has become a commodity over the last few years, as evidenced by a 50 percent reduction in long-distance rates in countries like the U.S. and U.K. Service providers are now seeing upstarts such as Virgin come in, buy bandwidth and compete. This kind of competition means that traditional, perceived differentiation factors such as "we cover 98 percent of the U.K. population" are no longer a means of sustainable competitive advantage.*

Given this increasingly complex environment, how can a services provider distance itself from the masses and build an environment of rapid growth, high margins, and satisfied customers? Increasingly, three factors are differentiating the winners from the losers in the network services provider market:

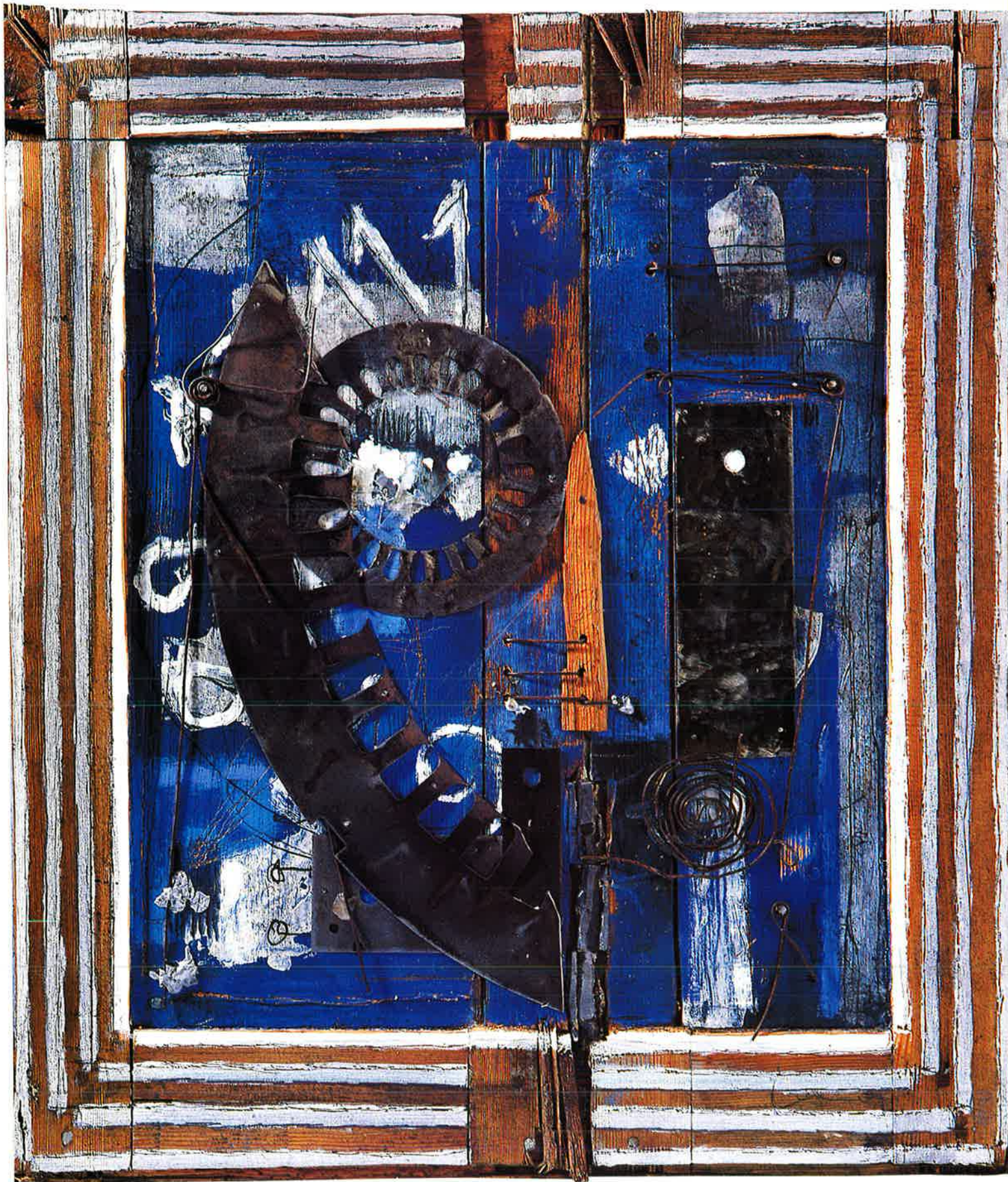
### ■ Ideas

Not too long ago, being a network services provider meant that you could follow a set of business practices which were fairly standard globally.

A telecommunications company in Singapore, for example, provided much the same services in much the same way as a telecom company in Germany. Both companies were likely regulated monopolies, both companies owned transport and switching gear, and both companies provided a relatively standard set of services, including local and long-distance switched services, private circuits, etc. Today, with the emergence of a single global networked economy that encompasses all wired telecommunications, data, Internet, wireless, etc., the diversity of services a network services provider can offer and the number of business models it can follow have increased dramatically.

For one, a network services provider can be a wholesaler of services to other services providers, a retailer of services, or both. Additionally, network services providers today can choose to focus on providing network access and core services such as dial tone, can focus on providing enhanced services such as unified messaging and WAP (Wireless Application Protocol) services, or both. Network services providers today can also provide other even less traditional services on top of communications networks, including software application leasing, Internet content development, etc.





*Portrait of a watchmaker on time*



Today, given limited capital and resources, network services providers have to make investment decisions on a daily basis that impact the type of company they will be over the next several years. Certain decisions might be biased toward long-term, large annuity generation. Others might favor short-term margins.

Still others might simply support development of customer loyalty in an effort to gain market share.

For some time now, Cap Gemini has helped hundreds of services providers worldwide identify and invest in new services, in using new technologies and in initiating successful development policies.



*Hamatsa portrait inspired by the ritual dance "The cannibal spirit," around 1898*



## ■ People

As the network services provider space continues to attract more competition, the battle for human capital becomes ever fiercer. The recent pull of talented resources toward Internet start-ups, lured by the new stock options culture, does not help the situation any. The most successful services providers have adopted two strategies: building an environment that allows these companies to attract and retain a strong employee pool, and forming strong partner relationships.

Employee needs and priorities differ across the globe. The things that are important to employees in France are not necessarily important to people in the United States, and the converse is also true. For example, broad-based stock options are a major tool to attract and retain employees at many U.S. network services providers. In France, largely due to tax laws and national culture, stock options are generally reserved for senior management, and cash-based compensation is the primary compensation tool used for recruiting and retention. Because of differences in employee priorities across different countries, there is generally no hard-and-fast global formula that works well for attracting employees and keeping them happy.

However, just about all successful network services providers share the explicit emphasis they put on designing compensation and retention programs. According to compensation consultants, the cost of an employee resigning from a company, measured by the opportunity cost of dropped projects, the cost of training a new employee, and other costs, amount to, on average, one-and-a-half times the employee's annual salary. Thus, compensation and retention programs which can decrease attrition by even a small percentage on an annual basis may represent considerable savings in labor-based operating expenses per year, allowing that company to invest in new initiatives and to move faster at rolling out new services.

Most successful network services providers have also put in place very strong supplier/partner relationships, which have the effect of extending the capabilities of these companies. For example, hardware

manufacturers can furnish installation and training services, in addition to the hardware, that help service providers install new networks. Systems integrators can oversee and provide resources for the implementation of the software and hardware systems required to manage these networks. Management consultants can provide the ideas and experience required to insure that the networks are being deployed to best advantage, and are carrying an optimum mix of services, given each network service provider's business objectives. Cap Gemini has provided its own resource base to allow well over one hundred network services providers around the world to grow and prosper.

## ■ Technology

The telecommunications market has seen an explosion of technology over the last five years. Two major technology trends are evident:

- Use of Internet protocol and packet-based networks, initially deployed to support data transmission over the Internet and within corporate local area networks, are now being deployed en masse to deliver tomorrow's communications services.

- A new generation of wireless networks (GPRS and EDGE), and the WAP (Wireless Application Protocol) standard recently developed by the telecom industry, which allows for Internet browser pages to be displayed on wireless handsets, will continue to expand both the geographic coverage as well as the scope of network services provided to consumers.

Over the past twelve months, Cap Gemini has forged a tight partnership with packet-based network equipment leader Cisco Systems, making it possible to offer industry-leading end-to-end solutions to network services providers, delivering both packet-based networks and the infrastructure required to support a broad number of services upon those networks. Cap Gemini has also been extremely active in helping services providers deploy next-generation *Groupe Spéciale Mobile* (GSM) standards and other mobile networks, and has been one of the largest implementers of billing and operational support systems for mobile network services providers in the world.



## ■ The 21st century is a glowing one for communications

For the foreseeable future, the pace of change for network services providers will continue to increase. The very boundaries and definitions of network services providers will continue to reproduce and expand with the roll out of new, ever advancing services. Information, in all its forms, will become increasingly accessible from a number of "network appliances." Innovative services providers will not only innovate and provide new services, they will introduce completely new pricing models. For example, the world has already seen the emergence of free Internet access, and free voice long-distance services are not too far away. We will also see some very unusual bundles in the near future, such as banking services bundled with telecom services, or discount products bundled with telecom services (e.g., [bluelight.com](http://bluelight.com)).

These opportunities are no more visible than in the area of 3rd generation mobile technology, UMTS. The advent of this broadband infrastructure, with theoretical limits of 2mbits per second, opens up a whole new business model – e.g., video conferencing and location-based information services. The broadband network has possibilities that could only be dreamed of a few years ago and will be limited only by our capacity to think the unthinkable. When we put this in the context of short-range radio technology such as Bluetooth, then we not only have our current Business-to-Consumer or Business-to-Business models but now an underlying e-Business infrastructure that is device-to-device commerce, which occurs as part of a wider business process and is potentially transparent to the user.

The challenge for services providers is to encompass this change in technology and build open access models and new business models to take advantage before the competition. The Cap Gemini Group is already involved in the 3rd generation mobile area and continues to build its thought leadership in this particular part of the telecommunications industry.

\* \* \*

With the rapid pace of change and the increasing flow of opportunities services providers face today, their leverage of the best possible ideas, people, and technology will maximize their potential for success. Cap Gemini, with its strategy and IT consulting services, is ideally positioned to help guide network services providers through the maze of change to find the opportunities best suited to each of their unique businesses.

**Ron Ponder & Phil Blades**  
**Telecom, Media & Networks**



*Portrait of a child*

## Points of view

### Knowledge sharing: some corporate examples

*According to the Gartner Group, 50 percent of the work performed by employees of American companies will be linked to information and knowledge management by the year 2002. So*

*what are the expectations of the major corporations? What solutions are they implementing? After all, speaking of "knowledge sharing" by a corporation (or any human organization) means speaking of new concepts, resources and tools available. A typology of the many uses of knowledge management can be drawn up on the basis of this discipline's various angles of attack.*



■ **“Transversability”** is certainly the most visible and most direct strategic capability bound up with the introduction of knowledge management into a company, as it provides emancipation from the “information silos” often inherited from past structures.

The Vivendi Group, for example, has set up an intranet-type knowledge management solution which provides all employees with information on job openings in all of the group’s branches, along with the facility to apply for these positions. The short-term goal is to enhance employees’ mobility and, in the longer term, to generate cross-fertilization between activities. Indirectly, this solution also contributes to the creation of a virtual community among human resources officers.

■ **Collaboration** which combines groupwork techniques and knowledge sharing is certainly the approach which will have the greatest impact on the working methods of both the employees of an organization and the self-employed workers surrounding this enterprise, particularly with the SOHO (Small Office/Home Office) phenomenon already becoming manifest in countries like the U.S. This new strategic capability provides an answer to the question of work “anywhere, anytime, with anybody” – that is, without physical constraint, through the advent of “virtual offices” which reflect the increasing dematerialization of the physical workplace.

This is why Hewlett-Packard makes all of its specialized intellectual capital available to all of its employees, enabling them to access customer files, marketing databases, sales promotion tools and analyses of the competition from their laptop computers. The availability of all this information for consultation prior to a customer visit provides an indisputable boost to sales force effectiveness.

■ **Localization** makes it possible to adapt a generic item of information or knowledge to a specific population, thanks to a precise knowledge of its profile. This approach is sparingly used, and usually involves either sophisticated e-commerce sites which detect a “community of taste,” or – more frequently – online publications, which provide readers with information matching their individual areas of interest. Daily newspapers such as *La Tribune* or *The Wall Street Journal* use these techniques not only to provide a

more tailored service to their readers but also to capitalize on their detailed knowledge of readers’ wishes and habits. This results in feedback in the information circuit that is faster and more efficient than the conventional “letters to the editor” route.

■ **The speeding up** of process management methods – while maintaining their traceability – is showing a substantial increase, aimed at responding to questions of the safety of goods and people. We are thus witnessing a capitalization of both the knowledge of organizations and the processes which form an integral part of their intellectual capital. Implemented “workflow” methods act both to track tasks over time and to preserve a record of the expertise applied to execute these tasks.

Axa and BNP were trailblazers in this approach, using these techniques both for conventional tracking of case-file processing and – above all – for the swift creation of new insurance and banking products on the basis of elementary building blocks, while complying with industry rules. Likewise, companies like FedEx, DHL and Chronopost are striving to provide their customers with resources for tracking deliveries in the context of electronic commerce as well as to exploit the statistical gold mine which is constantly fed by the execution of these processes.

■ **Capitalization** is certainly the best known dimension of knowledge management. It consists of the capture of organizations’ knowledge and know-how in knowledge bases. It is founded on the above-mentioned strategic capabilities and is designed to make knowledge universally accessible at any time, anywhere. It incorporates so-called “structured” data generated by – for example – accounting management systems with unstructured data derived from market studies and the numerous reports produced within organizations.

The Pechiney Group, for instance, uses a monitoring and research system based on “intelligent agents” which can capture all available in-house and market information related to aluminum. This technique – also used by many other industrial groups – generates solutions for economic monitoring and intelligence cells, using data sources available on the Internet. The obvious future of sites such as Buycomp, which make it possible to compare product purchase prices, is that they are going to evolve into sites for

global market regulation. Because they enable any user both to know current prices and their movements over time, these sites will reveal hitherto-unknown consumer marketing policies. In this way, knowledge management and e-Business will be intimately linked.

In the long term, still other strategic aspects – including design and innovation – will be integrated into knowledge management. It would seem today that the cognitive sciences, which in the 1980s were interested in the capitalization of expertise for the purpose of creating new knowledge, have not yet achieved significant advances in the area of knowledge management.

The example offered by The Ford Motor Company is edifying in this regard. Confronted with problems of non-reuse of available parts and duplication of tests, the solution adopted connected the company's CAD (Computer-Assisted Design) system to a knowledge base of parts already used in existing Ford products. During design and definition of a new subunit – a gearbox, for example – this solution automatically suggests the use of already-referenced units, while also adding new tests to the existing test program for these components, in order to validate them within the context of the new application. Optimization is twofold: the reuse of references ensures improved parts procurement; and the number of tests is reduced to strict necessity. Savings achieved were reckoned at tens of millions of dollars as of the first year.

■ **Training** will also benefit from knowledge management by offering – in addition to online or CD-ROM access – management of the information, programs and methods required for education. New simulation tools will facilitate the reproduction of known business cases. An organization may thus create “training knowledge bases,” made available to employees for study during free time or while on the road. Computer Channel, for example, offers all employees desiring further training the possibility of accessing a set of courses either online, on the company's intranet, or offline, by downloading to laptops for use during business travel.

The introduction of Microsoft's Web TV for online training courses at hotel chains is inspired by the same approach and adopts methods for using video servers channeled to hotel rooms. In a longer-term view, one might even envisage the creation of pay-per-view educational programs.

### **Are there any examples of successful corporations actually organized around knowledge management?**

In viewing the success stories of Dell Computers and Cisco Systems, we must not lose sight of the fact that they were made possible only through efficient communication and speedy collaboration between in-house players, through the pinpointing of operations on the basis of global offerings, the acceleration of internal processes and a capitalization of “best practices” in order to sustain a dizzying growth rate. An analysis of their internal working processes is just as instructive as an analysis of their Web sites: marketing bases for product configuration, training bases for new arrivals, groupwork systems for the solution of customer problems, even IP telephony integrated into individual workstations.

In other words, all concrete solutions which have enabled these upstart companies to grow in a new economy founded on the basic equation:

$$\text{e-Business} = \text{e-commerce} + \text{e-knowledge}$$

Will their fellows be able to pick up the gauntlet?

René-Charles Tisseyre  
E-Business Unit





*Exhausted portrait of a winning cyclist*

## Points of view

# The dot.com mania in public utilities

*or a few years now, the electricity and gas sectors have experienced significant changes mainly due to the*

*adoption of deregulation laws allowing for free competition in electricity and gas supply. The European Directive imposes opening at least 30 percent of each regional or national market to competition. However, some countries such as the Netherlands and Spain have already established a larger free market,*

*and in other countries like those of the Nordic region, Germany, some American states and the U.K., electricity supply is totally deregulated and all customers can choose their supplier.*

*For its part, France, in early 2000, adopted the new electricity law minimally implementing the European Directive. In the gas sector, the European Directive takes effect in continental Europe during 2000. In the U.S. and U.K., the market is already fully open to competition.*

### **In 1999, this deregulation wave has triggered dramatic changes, mainly in three areas:**

#### **■ New business and new actors**

New businesses, such as electricity pools, trading, grid and pipe network management (ISO/TSO), and metering have continued to develop – with, for example, the creation of the Amsterdam Power Exchange and the New Electricity Trading Arrangements in the U.K. However, one can expect more changes in these segments of the value chain as the liberalization of electricity and gas continues and as new technologies are introduced.

More new entrants have appeared such as Statoil in the electricity market in Norway and Sweden, retail companies (Metro in France, Quelle in Germany), and in the U.K., Virgin has announced its intention to use Internet technologies to jump into multi-utilities services (telecom, gas and electricity).

#### **■ Industry restructuring**

Some government-owned monopolies, such as ENEL in Italy, are now being very successfully traded on the stock exchange. The Finnish-Swedish group Fortum is also traded on the stock exchange, and EnBW in Germany, in which EDF has taken a 25 percent share, will be traded in 2000.

At the same time, this industry, like many others, is experiencing a raft of mergers and acquisitions

triggered by the need to achieve economies of scale, to become a global (or at least a European or American) supplier in order to serve large industrial or commercial groups, and to compensate for losses in their former monopolistic zones by conquering new territories. In this area dramatic moves have taken place in Germany with the merger of VIAG and VEBA, and RWE with VEW.

In the U.S., many mergers between regional monopolies have also taken place, while U.S. companies have continued to divest from the U.K. market (Swb sold by Cinergy to London Electricity, for example). Inversely, European companies are investing in the U.S. (e.g., Scottish Power acquiring PacifiCorp and Vivendi buying U.S. Filter).

#### **■ Electricity and gas supply is becoming a commodity**

In Europe, where there is a surplus of electricity capacity, the price of electricity in deregulated areas or for eligible clients has experienced dramatic decreases of up to 40 percent. Unbundling of supply and distribution, as well as the introduction of free competition, are lowering the entry barriers and thereby transforming electricity and gas supply into commodities.

To face these challenges, the utility companies must:

- become really client-focused organizations, implementing new customer management methods and systems as well as selling bundled services;
  - achieve dramatic savings to remain competitive.
- This cost reduction trend that began in 1999 will be long-term and painful to achieve.

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Over and above the changes described above, the new Internet technologies started to penetrate the utilities sector in 1999, and will have a dramatic impact in 2000 and the years following.



## **Internet technology will impact both the visible and less visible aspects of the utilities industry.**

The **most visible** part is, without a doubt, customer relationships. Nearly all incumbent utilities have set up Internet portals to inform their clients. Some have created dot.com companies to sell electricity, gas and other services such as home security, energy management, electricity quality improvement, financial services, insurance, etc.

The most striking examples are in the Business-to-Consumer (B-to-C) market: Abonnera.com, launched by Vattenfall, and the dot.com companies created by the large German utilities, sometimes in association with retailers.

In order to enhance their relationship with their large clients, Business-to-Business (B-to-B) portals have been implemented, in Sweden by Birka (with Cap Gemini's help), and by Enron which has already sold electricity through this new channel.

By using e-channels, utilities will be able to improve their customer relationships, adding new services delivered through partnership with other companies (e.g., insurance with financial institutions) and also to lower their sales and delivery costs by customer.

Incumbent utilities, as well as new entrants, will design, build, and run new customer relationship platforms using Web technologies and offering bundled services. These platforms will give them a competitive edge that they will leverage not only in their home area, but also through their future acquisitions in Europe or to deliver new services.

For e-enabled customer relationships, utilities companies should move quickly to position themselves as winners in a market where there will be winners, but also losers.

Cap Gemini is a perfect supplier for those utilities with the technical ability to design, build and run these new customer platforms. Moreover, Cap Gemini, with its considerable understanding and knowledge of the utilities business, as well as other sectors (insurance, finance, retail) and its 1,500 specialized consultants, is an outstanding partner to adapt and expand this platform all over Europe and in the U.S.

The **less visible** part of the value chain relates to logistics (transport and distribution), generation and wholesale. Here again the e-economy will change the business, allowing cost savings and better quality of service. E-procurement will have a dramatic impact on managing such assets as lines, wires or plants.

E-trading will develop in the energy markets as it has started in stock or other commodity markets. It will allow cheaper and quicker transactions and, together with the deregulation wave, will improve market fluidity. All this will increase the need for cross-border electricity and gas exchanges of information between the European transmission system operators. Here again, Internet technologies are perfectly adapted to establish the appropriate links between existing systems, to extract the needed data and to build a friendly user environment for the operators while ensuring security and confidentiality.

Last but not least, e-technologies will impact the internal business processes of the companies themselves, enabling them to be more efficient, more transparent and more capable of managing the collective knowledge of their colleagues.

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Customer focus, speed, flexibility and knowledge management are the winning cards for incumbent and new entrants in this fierce environment.

To meet these new challenges in an uncertain world, the utilities will also have to build partnerships with companies like Cap Gemini to achieve best-of-breed technologies, to benefit from cross-sector and cross-geography competence, and to improve their competitiveness by concentrating on their core business.

We are happy to serve them.

**Colette Lewiner**  
**Utilities GMU**





*Portrait of a paranoid schizophrenic unaware of his condition*





*Proud lion portrait*

## Points of view

# The forgotten aspect of the network economy: the human face of “e”

*From strategy to infrastructure to information to process – there are many critical considerations a business faces when*

*attempting to “wire up” to compete effectively in the network economy. However, one critical aspect of e-success is often ignored: the human element. In this digital, mobile, technological age, it is easy to see the relevance of wires and systems, PCs and modems, internets and information super-highways. But, as we have discovered as a*

*group and as consultants to clients around the world, the network revolution is less and less one of machines, and more and more one of men and women.*

### ■ The impact of a wired world

The fact is that this connected economy has empowered the individual on almost every level. Through the Internet customers can demand and receive 24-hour, 7-day a week service; change allegiances and brands with the click of a mouse; buy goods and services anywhere around the world and absolutely, positively, receive them overnight. The global village is an instant gratification society demanding a great deal from today's institutions, particularly its businesses. The network age is one of real revolution in business, where increased quantity and quality of choices and the information available has shifted power from producer to consumer. In many industries, it is quickly becoming the customers who decide what products will succeed and fail and even which ones will be invented next. Companies, and the people who work for them, are now expected to produce to suit a 24-hour global service clock. Employees are under constant time and profit pressures – often working outside of their cultural comfort zones in international, virtual, and technologically advanced environments. The e-economy has offered more opportunities to succeed, yes, but also more chances to fail. More than ever before, the only unique power base a business has to differentiate and win in its market is its talent.

Indeed, in the e-world, talent is critical to success. You may install state-of-the-art sales tracking systems, but if your sales team won't or can't use them, then the data you'll find there is as good as last week's newspaper. And when it comes to attracting and retaining consumers, your Internet site can only go so far. If there are not committed real people on the other end filling orders, ensuring shipments, and providing customer service, forget retaining business in the fickle world of "click and point" loyalty.

Employees know their value in this marketplace and are consequently demanding more of the companies that employ them. Businesses must ask themselves, now that we've wired up the

infrastructure, what will it take to wire up the people to get them committed to our organization and delivering our mission?

### ■ Making the move to Employee Relationship Management

Learning from the latest revolutions in Customer Relationship Management (CRM), companies can begin to move quickly from thinking about the current "employment contract" to Employee Relationship Management. ERM begins with the premise that every employee is indeed an individual consumer of the company, with the choice to select other alternatives. Treating employees as individuals is in many ways like treating them as consumers of the company, recognizing that they have the choice to change if they are not satisfied with the service you provide. Thus, the first step of effective ERM is realizing that the one-size-fits-all approaches of the industrial age will no longer fit the new e-Business model.

### ■ Know, target, sell, and deliver to your employees

Most traditional HR, compensation and career models were not designed for the e-economy, but for a stable workforce environment where people would stay with the same company in the same relative capacity (full-time employment) for many years – if not for their working life. Today people will come in and out of your organization for different durations and under different contractual arrangements. This requires a more individualized approach to human asset management. You must Know, Target, Sell, and Deliver to your employees:

- **Know** whom you want to attract to your organization and whom you need to retain to succeed in the e-world. Look at your resourcing strategies and at the different types of relationships that you can have to meet the demands of your 24-hour, technology-wired business.

- **Target** the talent. A strong brand plays a substantial part both in recruitment and in retention. A recent study of Americans indicates that more than 90 percent get their information on a company from the Internet, making it critical to project a solid brand image over this medium. Companies should





*Portrait of a woman in love walking at night in the woods, 500,000 years before Christ*



project on their Website the attitude they want to attract. Additionally, businesses must remember that a broad range of skills is required for success in the multi-cultural, multi-faceted e-world. This means we need to understand the segmentation of our customer base and also the workforce that will enable us to deliver to them.

- **Sell** the benefits and the flexibility that you can offer. In the e-world, it is a combination of the rational offer (pay, benefits, the work), the emotional offer (why you will enjoy working for this company, the people, the culture, the atmosphere) and, increasingly, the work/life offer (flexibility, differing arrangements, tools to support balance) that will make a difference to those who join your organization. In the e-economy, people spend the majority of their time at work; they want to be part of something special, to make a difference, and to "have a life."

- **Deliver** what you have promised. This applies as much to your existing employees as it does to your new recruits. Part of our leadership and management way of life should be the continual re-recruitment of the talent we already have. In this way we can deliver on the promise of our brand and build the longer-term relationships that will help us to succeed in the future.

### ■ New deals for a new economy

Practically speaking, an e-Business must broaden its employee offer in ways other than traditional variations on monetary compensation and health and similar benefits to achieve these goals. Thus, the "new deals" that will help to hard-wire the workforces of the e-economy must effectively deliver the following:

- **Diversity.** Already, in the U.S., we see companies being excluded from tendering processes for sending in sales teams which did not represent a diverse workforce. Further, many of today's sociologists and anthropologists theorize that the strengths of women and minorities will be in great demand in the Web world where new types of thinking and management strengths will take on greater importance. Wired businesses must create the programs and policies that foster the development of these new skills and maintain true diversity of insight. In a global

economy dominated by services and consumer products, the customer base is itself more diverse than ever, increasing the pressure daily on organizations to mirror the real world if they want to succeed in it.

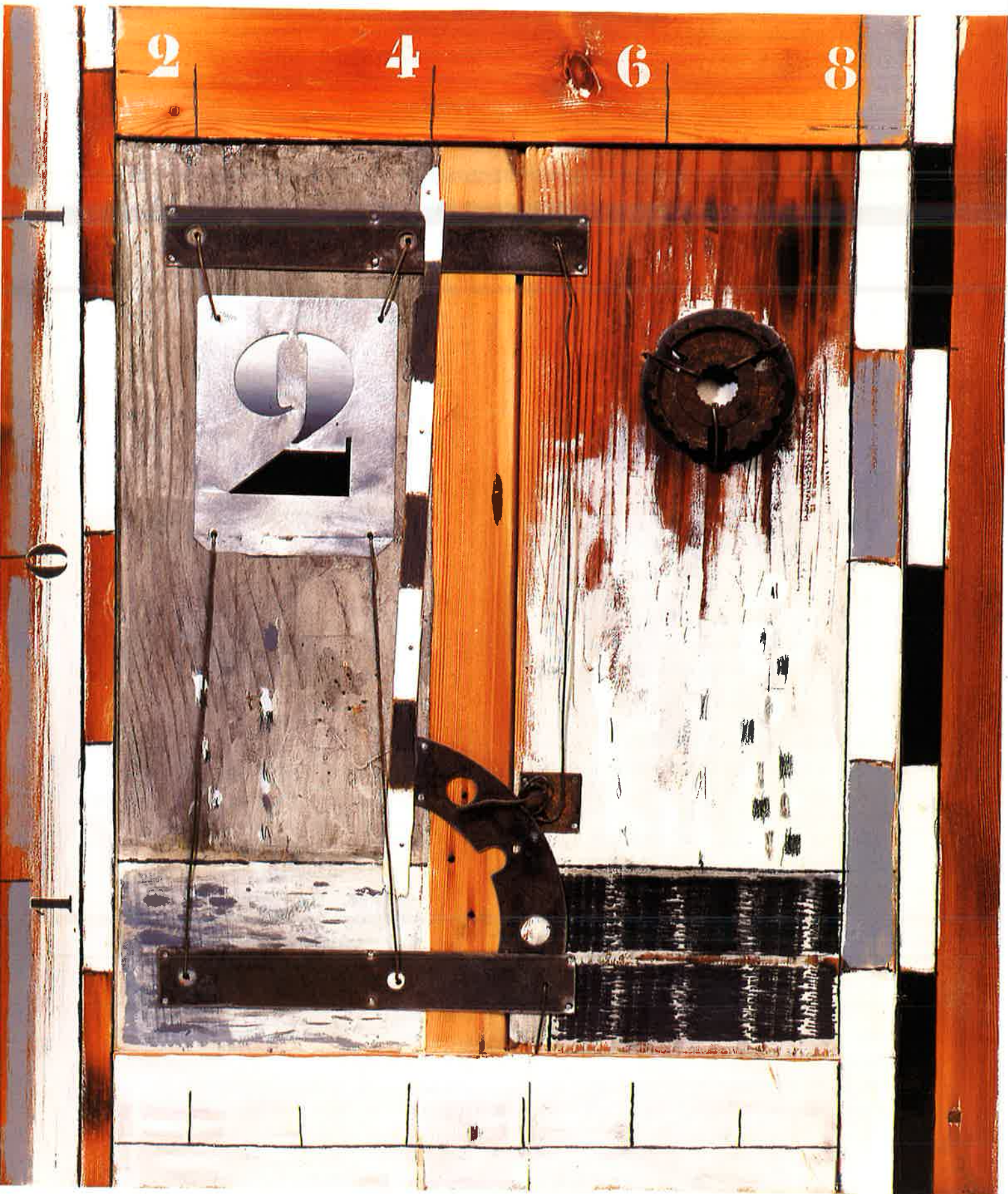
- **Meaning.** In this consumer society, more and more people will be eager to understand the meaning of things and their place in the world. Surveys of young graduates, including research done by AIESEC, indicates that areas like corporate social responsibility, ethics, and community involvement are issues that matter to today's employee base. They are looking for, and will continue to look for, businesses that comply with their own set of values.

- **Learning culture.** When what you know is more important than whom you know, and when boundaries are removed to enable the thoughtful transfer and sharing of information and ideas, then knowledge workers can thrive. Wired businesses do well to create and facilitate the culture, systems, tools and reward mechanisms that foster such environments.

- **Networks and communities.** As work becomes more partnership driven and as knowledge becomes the key ingredient for success, then a company's ability to develop, nurture and have thriving networks becomes critical. Fostering the development of communities and networks which offer opportunities for interaction, problem-solving, and involvement, are particularly important to younger workers and can provide real financial benefits for organizations in the form of knowledge development and reuse to avoid reinventing the wheel.

- **Flexible work arrangements and contracts.** Technology has not only created a virtual marketplace; it has created the potential for a virtual office. More and more work can be done from anywhere, at any time. Once considered primarily as a means to retain women, such arrangements are proving equally critical to attracting talented individuals of both sexes (particularly in the very competitive U.S. talent market), as people from all walks of life seek more flexibility in this changing, complex world. More than developing policies or programs, this requires a change in mindset – from "management of time" to "management of objectives."





*Multi-faceted portrait of a geometrician*

Similarly, benefits must be mutually agreeable, offering workers more opportunity to choose the ways they would like to be compensated. Leading-edge employers are already beginning to set base figures and offer a menu of options that include a broad set of "cash" and "soft" choices from stock options to reduced work schedules to "cafeteria health plans" and beyond.

- **Communications.** In a work world set to be dominated by technology and virtual interaction, managers need to develop a "high touch" management style whereby they can seek out talented individuals and establish relationships. A combination of information-sharing and two-way communications must be developed and allowed to prosper in organizations. From an information perspective, this means providing information on demand in varied formats accessible to all employees. Intranets are perfect vehicles for giving access to all information and allowing individuals to select content according to personal interests or needs. At the same time, face-to-face communication further individualizes the process, giving employees the sense that their personal views are important – they are individuals and not just numbers.

- **Development "waves."** An Internet year passes in a matter of months. In this environment "doing your time" is not an acceptable development strategy. Businesses must recognize that the employment picture changes as quickly as the customer landscape in the wired economy. The need to create continual development waves, through training, through a new project, through knowledge sharing, through networks and teams will be critical.

\* \* \*

Ultimately, it takes care to wire up the people of a company. Businesses which hope to succeed in this technological future should never forget that today's employee is as much a consumer as anyone who will purchase your products or services. They, too, can vote with their feet.

Give employees something exciting to do today and they will stay today; create an environment where they can grow and feel nurtured and they will stay for tomorrow. This is the good news for Cap Gemini and for the clients we are helping to wire up to win in the e-century. If you master the art of building relationships in a fast moving and increasingly virtual world, you will succeed in hanging on to your talent.

Carolyn Nimmy & Crystal Schaffer,  
Cap Gemini





*Portrait of a peasant in the field gathering small seeds*



## The Cap Gemini Group in retrospect

### JANUARY

#### A highly competitive win with Open Interactive

In January 1999, Open Interactive, Britain's first provider of interactive television, agreed a deal with Cap Gemini as their outsourcing partner, responsible for their entire operational infrastructure, worth over 22.8 million euros. Cap Gemini won the contract against competing bids from several other leading IT multinationals.

This contract was the first time that a major broadcasting company in the U.K. had entrusted so much of its online and support systems infrastructure to an external service provider.

Open Interactive, jointly owned by BSkyB, British Telecom, HSBC and Matsushita, launched the first full range of interactive television services nationwide. These include shopping, banking, interactive games, weather reports, betting, travel and tourism services and e-mail services. Open Interactive is one of the most exciting developments ever to hit the U.K. television scene.

James Ackerman, chief executive officer of Open Interactive, said: "Outsourcing our IT will enable us to focus on the creative and innovative aspects of our exciting new service. Cap Gemini was awarded this key contract against competitive bids because of its in-depth understanding of broadcast media, its proven record in providing 24-hour reliability for mission-critical systems and its successful completion of specific projects on our behalf over the last two years."

Systems included in the Cap Gemini contract cover aspects of service creation, content management (including commissioning and delivery), online broadcasting and transaction management systems.

#### Cap Gemini puts Dutch Railways' Personnel Administration right on track

NS Nederlandse Spoorwegen (Dutch Railways) is the main railway provider in the Netherlands, divided into several subsidiaries (Travelers, Cargo, Engineering, Personnel Administration, Rail Consulting). NSP (Dutch Railway Personnel Administration) forms a central unit within the organization, in charge of supporting personnel administration and information, as well as salary administration for the other subsidiaries, plus three private organizations.

On January 1, 1999, a complex Gross/Net accounting module for 25,000 employees went operational, on time and above customer expectations. The project, which was carried out in 12 months by a multidisciplinary team of Cap Gemini consultants, and based on the SAP R/3 Human Resources Management System, had to cope with complex authorizations: NS has to deal with several collective labor agreements; subsidiaries have different rules and different pay cycles, resulting in over 600 types of centralized and decentralized users.

The first payday using the new system went as planned: smoothly. Payment slips were printed automatically on 20 different types of paper for NSP and its clients.

During the project, Cap Gemini was responsible for the configuration of the software, customizing the interfaces and providing support in the production of training manuals. NSP was responsible for the education of all the users. Cap Gemini is still in charge of service maintenance.



## FEBRUARY

### Ireland's Glanbia scores with its SAP Program

Glanbia has successfully completed the first stage of its strategic SAP Program with the implementation of new business systems across the company's operations in Ireland and the U.K. The project includes the roll out of up to 1,500 online users of SAP R/3 and is being implemented by Cap Gemini Ireland.

Glanbia, with sales of 2.5 billion euros, is the largest dairy producer in Ireland and the U.K. with leading positions in a range of market sectors. It is one of the world's major dairy processors serving markets throughout the EU, the Americas, Asia and Africa.

Cap Gemini won the contract against stiff competition from the leading players in the IT industry. "We selected Cap Gemini because of their knowledge of the dairy business as well as the quality of their team. They displayed the necessary IT skills and experience for the job and successfully integrated the business initiatives with the systems implementation," commented Jim Bergin (IT Director, Glanbia).

## MARCH

### Management Solution for Chupa Chups Group

Cap Gemini Spain was designated the technological partner of the Chupa Chups Group (a global Spanish candy manufacturer) to develop a management solution based on SAP. The roll out will last more than a year and is being implemented through a mixed project team in all the Chupa Chups Group's subsidiaries worldwide. This engagement covers adaptation of the solution to local operations both in business and legal aspects. Chupa Chups will strengthen its multinational scope, unify its management processes and utilize management models to enhance and optimize the current ones. It will also increase each subsidiary's ability to compete in its market and improve customer satisfaction, market and product innovation, productivity, and information access and treatment.

### Cap Gemini Transforms e-Business at SwissOnline

SwissOnline, originally an ISP (Internet Services Provider), decided to expand its business and pioneer a new concept of providing a total, ongoing commercial Internet service to local companies active in the Swiss and international markets.

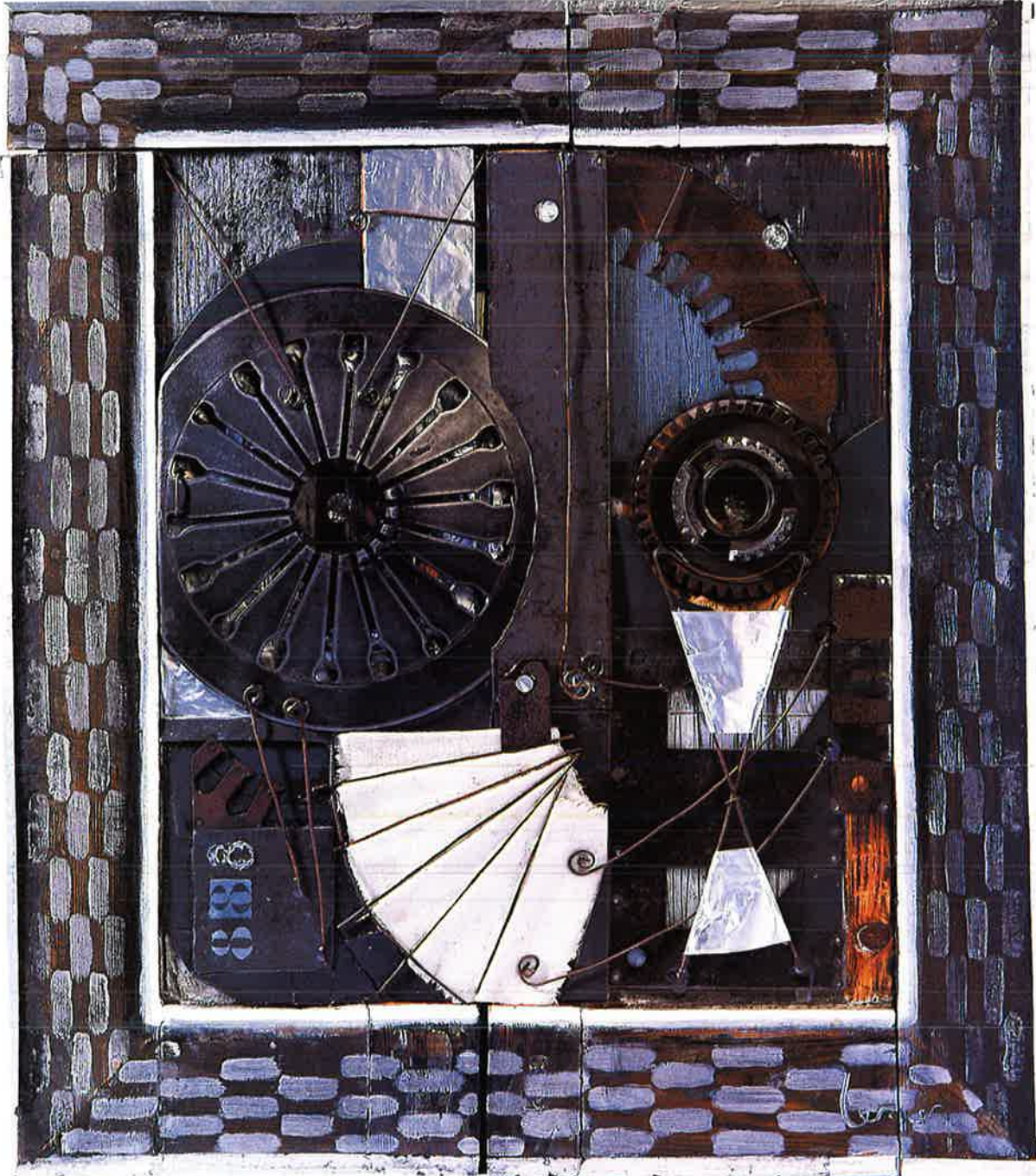
According to SwissOnline: "Most retailers and manufacturers are keen to exploit the new sales and profit opportunities that the Web offers, but they fear the hassle and the risks. Cap Gemini has removed the critical part of the risk by giving us an electronic payment mechanism that is accepted as fully secure by all the major credit card companies and even by Swiss banks, which is surely the ultimate accolade for financial security."

SwissOnline's e-Business concept included "hassle-free" service to businesses, including everything from Website design and public launch to stock control issues, payment processing and even, in liaison with the Swiss Post, delivery of goods to the final consumer.

In just ten weeks, Cap Gemini designed and delivered an Internet payment system with the following features: highest security, comprehensive functionality for all methods of payment, and reliable interfaces to the four major parties involved in a Web transaction: the consumer, the bank, the credit card company and the retailer.

The SwissOnline site, which functions as the gateway to the electronic shopping mall, now hosts a range of goods and services ranging from cars and clothes to houses and jobs. At [www.swissonline.ch](http://www.swissonline.ch), it currently registers over 1.5 million visits per month.

Over 900 businesses, mostly small or medium sized, have signed up with SwissOnline, and during its first two years, over 70,000 satisfied clients have been using its Cap Gemini Secure Payment Server.



*Portrait of an astronaut*

## The SNCF heads in its clients' direction

The SNCF (the French national rail system) turned over to Cap Gemini management of a project to transform its railway station points-of-sale application. Known as "*Mosaïque*" (Mosaic in English), this project is part of SNCF's new marketing policy around which it will be possible to develop a revamped range of train services.

For this project, designed to revive its travelers information system, the SNCF chose a consortium, led by Cap Gemini, which links several prestigious companies: ICL (for deployment), Microsoft, Cisco and Compaq (technologies) and Computer Associates (administration).

The challenge for Mosaic is basically technological (deployment of a modern and adaptable component-based infrastructure), but also – and principally – functional around the distribution system.

For the Cap Gemini Group, the signing of the Mosaic contract confirms its leading position in the French Public Services sector.





*Mute portrait of a xylophone player*

## APRIL

### Britannic Assurance launches ISAs

Britannic Assurance plc is a leading U.K. company in the insurance, pensions and savings market, with over £20 billion of funds under management and over 1.5 million customers.

In 1998, Britannic embarked upon a major investment program to modernize its core systems and Cap Gemini was selected as its partner, supporting Britannic in three major parts of the program.

Britannic wished to launch an Individual Savings Account (ISA). Cap Gemini's Insurance Companies Information System (ICIS) was selected as the

platform to provide the ISA functionality required and also as a base from which Britannic could launch future new products.

The project was delivered on time and under budget, enabling Britannic to offer a world-class range of full-featured ISAs on day one of the new regime.

Britannic has a field sales force of 2,000 fully qualified personal financial advisers. As part of this operation, Britannic aimed to transform its sales processes using modern laptop technology. Cap Gemini supported Britannic in the design and development of the new systems, then the subsequent implementation and training.

## A growing presence in U.S. telecom market

With the acquisition of U.S.-based Beechwood, a New Jersey company specializing in information technology services for the telecommunications industry, and the win of several landmark deals, the group continued to advance its global position as a leading solutions provider to the telecommunications industry in 1999. Notably, Cap Gemini America closed a 15 million euros, three-year Applications Management (AM) agreement with Billing Services, a business entity of Kansas City-based Sprint. The Cap Gemini America team is responsible for providing new development and maintenance of Sprint's billing systems that support contractual customers; technical expertise to keep these systems running efficiently; and "best practice" knowledge and management to improve quality and productivity. In 1999, Cap Gemini America continued to advance the group's presence at Sprint through strong day-to-day leadership and collaborative efforts involving the West (California unit), Information Systems Management (ISM), and Cap Gemini Telecommunications divisions.

## MAY

### Knowledge Management in Life Sciences

As new drug discovery technologies promise to reduce time to market, their advent is causing pharmaceutical companies to rely increasingly on third party specialist service providers in the research and development process. Oxford Asymmetry International (OAI) is one such company, offering a unique service to companies involved in the discovery and development of new drugs and agrochemicals by combining their high speed parallel synthesis (HSPS) chemistry expertise with process research and development scale-up services to provide "The Complete Chemical Solution."

Key to providing these services is the ability to manage the massive volumes of information relating to the synthesis and analysis of hundreds of thousands of new chemical structures. OAI is a company not only meeting this challenge, but seeking to gain competitive advantage by doing it better than anyone else. OAI's Executive Chairman, Edwin Moses, is committed to developing Knowledge Management techniques: "Central to OAI's strategy is to be able to exploit our information fully in order that our clients can add value to their business. I see our Knowledge Management program as key to the differentiation and growth of OAI."

Cap Gemini's brief was to design a practical way forward for OAI to improve the management and sharing of knowledge to support growth, generate efficiencies and to enable new business opportunities. This award winning Knowledge Management program is now delivering measurable financial benefits. As Edwin Moses points out: "We decided early on that we would need a partner to work with and Cap Gemini's business-focused, pragmatic and rapid implementation approach gave us confidence that together we would succeed."

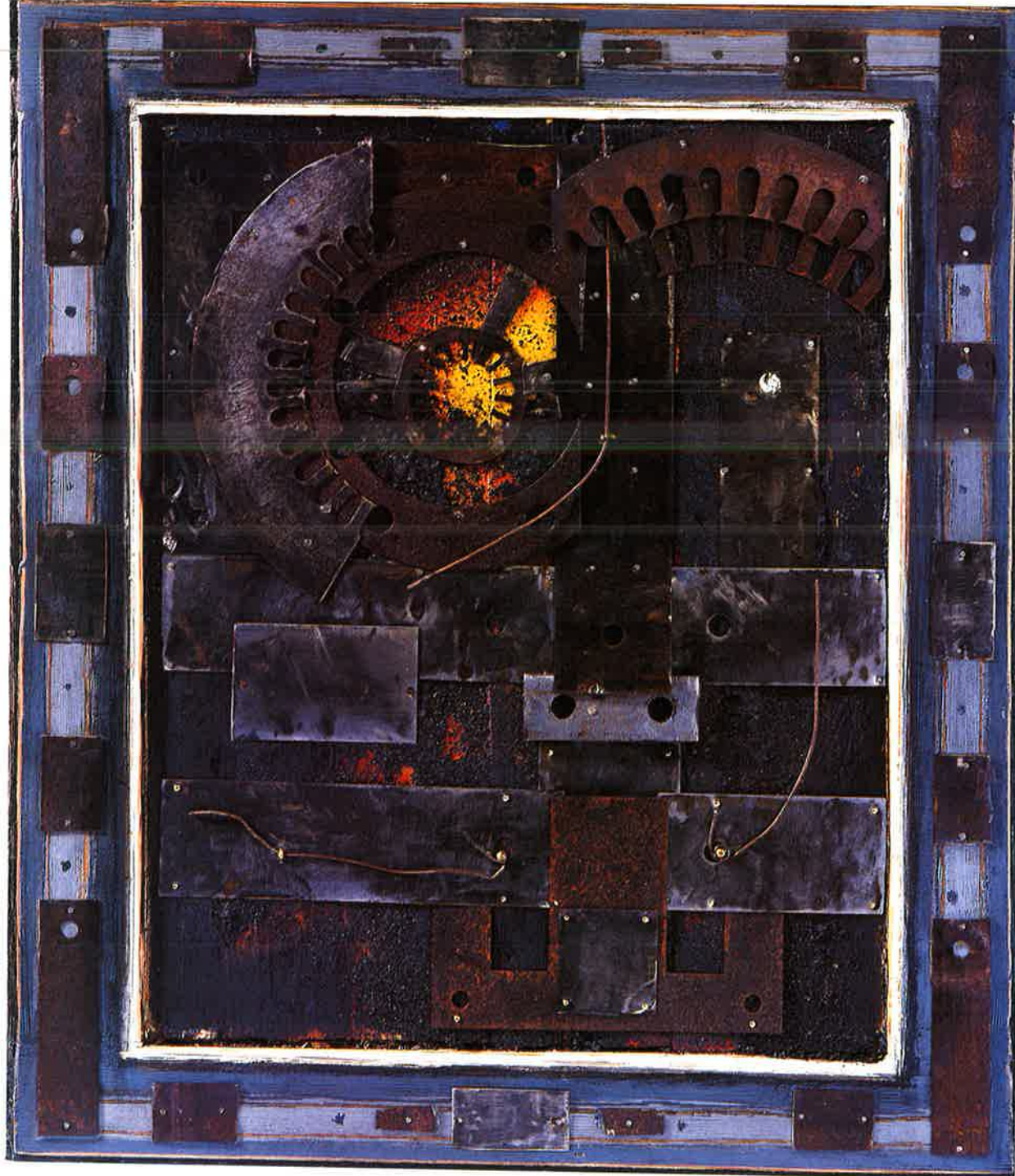
## Common currency at Pechiney

One of the world leaders in aluminum and packaging, Pechiney is number one in Europe in aluminum primary metal and number four in aluminum production and products. The aluminum industry is also active in the transport, construction and aeronautics sectors. Packaging is also integral to many markets including food, health care, hygiene and cosmetology, in which materials are transformed (steel and plastics, in addition to aluminum).

Pechiney has already implemented a transitional euro strategy according to a precise timetable:

- Since January 1, 1999, all financial communication is in euros. The accounts of Pechiney SA (the holding company) are in euros. Meanwhile, all the subsidiaries are in the process of establishing their commercial relations in euros with any clients or suppliers who so desire.
- From second-half 2000, all consolidated companies of the group based in the euro zone will shift their





*Portrait of an ironworker*

accounting and financial control to the euro, retroactive to January 1. At the same time, Pechiney will implement a transitional cash-flow policy (purchases, sales) in euros, mainly for internal cash flow.

- By January 2002, at the latest, the company's human resources management will also shift to the euro.

As early as 1997, Pechiney set up a dedicated "euro Finance Mission," as a structure to handle the transition. The first phase concentrated on business aspects. This structure was reinforced in May 1999 by a team of experts – a project manager from Pechiney and consultants from Cap Gemini – charged with converting the information systems. Twelve projects

were organized throughout the company, each responsible for converting its IT system. Certain activities were centralized such as adapting Cap Gemini's methodology to Pechiney's demands; deploying that methodology to the twelve different projects; assistance and support in office automation conversions, among others. Some of the project teams were strengthened with additional euro consultants from Cap Gemini.

The successful completion of the first conversions at the beginning of 2000 confirms the choice of a working method based on the complementarity between the Pechiney and Cap Gemini teams.

## Cap Gemini partners with Cisco at Swisscom

In 1999, Cap Gemini delivered a management system for Swisscom's new IP Standard Services network, serving Enterprise customers (Local Area Networks interconnection through Virtual Private Networks, Internet and Extranet access). Swisscom is the largest telecommunications provider in Switzerland. Based on Cisco technology, the solution designed by Cap Gemini meets the specific requirements of Swisscom: proactive network fault management and real-time monitoring of services. This allows Swisscom to deliver high level services to its customers and gain competitive advantage over other service providers.

## JUNE

### Customized HR system for Hewlett-Packard and Agilent

Hewlett-Packard's Human Resources information system in its European operations takes care of personnel management of all HP's employees in Europe, the Middle East and Africa. The system also handles internal and external recruitment throughout these geographic areas. In March 1999, the company decided to separate its Test & Measure activities from its Information Technology and Imaging activities. This gave rise to the creation of Agilent Technologies, a new company that will mobilize Hewlett-Packard around the opportunities offered by the Internet and the development of e-services. HR management will be handled independently within the two companies, each having its own environment, applications and business-specific data.

The objective of HP and Agilent was to build separate systems by November 1, 1999. To carry out this project, a tender offer was launched and Cap Gemini was selected.

Working in collaboration with an HR expert from Hewlett-Packard, Cap Gemini defined the migration strategy and identified the technical solutions to be adapted to the individual needs of each company. As a base, the system for Agilent Technologies duplicates Hewlett-Packard's European HR. The challenge was

formidable: five months to duplicate the application by distributing all data that would assure the easy transfer of personnel from one company to another, while respecting the legal constraints in each country. As a result of its ability to react, to anticipate and to move ahead as a team to meet the strict time scales, Cap Gemini was able to satisfy all of Hewlett-Packard's requirements.

### Imperial Tobacco Group – Sales Force Automation project with Siebel

Imperial Tobacco Group PLC is an integrated international tobacco company with extensive worldwide international operations, manufacturing and selling a range of cigarettes, cigars, roll-your-own and pipe tobacco and cigarette papers. Recent acquisitions, particularly of the Rizla and Van Nelle Tabak businesses in Europe, brought with them a need to review the management and consolidation of customer data. With ever more restrictive proposed legislation on tobacco advertising throughout Europe, and because the group had inherited several incompatible systems for managing customer and market information, it decided to look for a single software package that could provide a consistent basis for sales force automation across the whole business.

The Consumer Packaged Goods version of Siebel's Sales Enterprise Solutions was the chosen package and Cap Gemini, based on its experience in package integration, international applications roll out, its Customer Relationship Management and Siebel competencies and consulting capabilities in the consumer packaged goods sector, was selected as ITG's integration partner.

Working closely with ITG representatives from the different countries involved throughout Europe, Cap Gemini established the detailed business requirements to suit the way the field sales force was going to work. A key requirement was to define and configure a core system for roll out to each country with minimum local variations.

The initial consulting and development phase with a first roll out in Belgium early in December 1999, was delivered to time and budget and took 5 months. Implementation and roll out in several other European countries, including the Netherlands, France, Germany and the U.K., is planned throughout 2000.





*Portrait of an assassin in the early morning*

## SEPTEMBER

### Worldwide SAP R/3 implementation for Mölnlycke

Cap Gemini has signed an agreement with Mölnlycke Health Care to implement SAP R/3 at its operations in 20 countries around the world. As Mölnlycke Health Care's IT partner for the future, Cap Gemini will be responsible for installation, roll out, operations and maintenance. The collaboration agreement is worth just over 11.9 million euros.

Now that Mölnlycke Health Care is changing its

entire business structure, new business systems are required which incorporate, among other things, new shared customer service management. To make its information processing efficient, rational and sustainable, the company has chosen to invest in SAP R/3 in all 20 countries in which it does business.

"We are currently implementing a major change in our organization and systems. It was crucial to us to find a long-term solution and we are delighted to have a global company like Cap Gemini as our partner. They have the ability to work internationally and also have a strong base in Sweden," says Mats Nilsson, CIO and CFO at Mölnlycke Health Care.

The five-year agreement goes beyond the SAP R/3 implementation. Next summer, the first pilot installation will have been completed at Mölnlycke Health Care in Göteborg, after which the system will be implemented in other operations throughout the world.

Mölnlycke's core activities are manufacturing and selling sterile disposable products for surgical and wound care. Mölnlycke is a market leader in Europe and has its own sales organization in all countries where it operates, including North America. New markets are also being developed in parts of the former Eastern Bloc, the Middle East and Southeast Asia.

## OCTOBER

### Cap Gemini helps Banco Espírito Santo surmount Y2K hurdle

Banco Espírito Santo BES – one of Portugal's largest retail banks – successfully completed the Year 2000 Program and, on schedule, entered the frozen zone with their plan fully accomplished. Cap Gemini helped and worked together with BES at many levels: determining a strategy and renovating their legacy applications, managing the suppliers' network, defining a global enterprise test strategy and implementing a process to avoid code reinfection.

Cap Gemini worked with BES for 18 months with a team of 30 on more than 12 projects.

## NOVEMBER

### Cap Gemini develops WAP service for Dun & Bradstreet

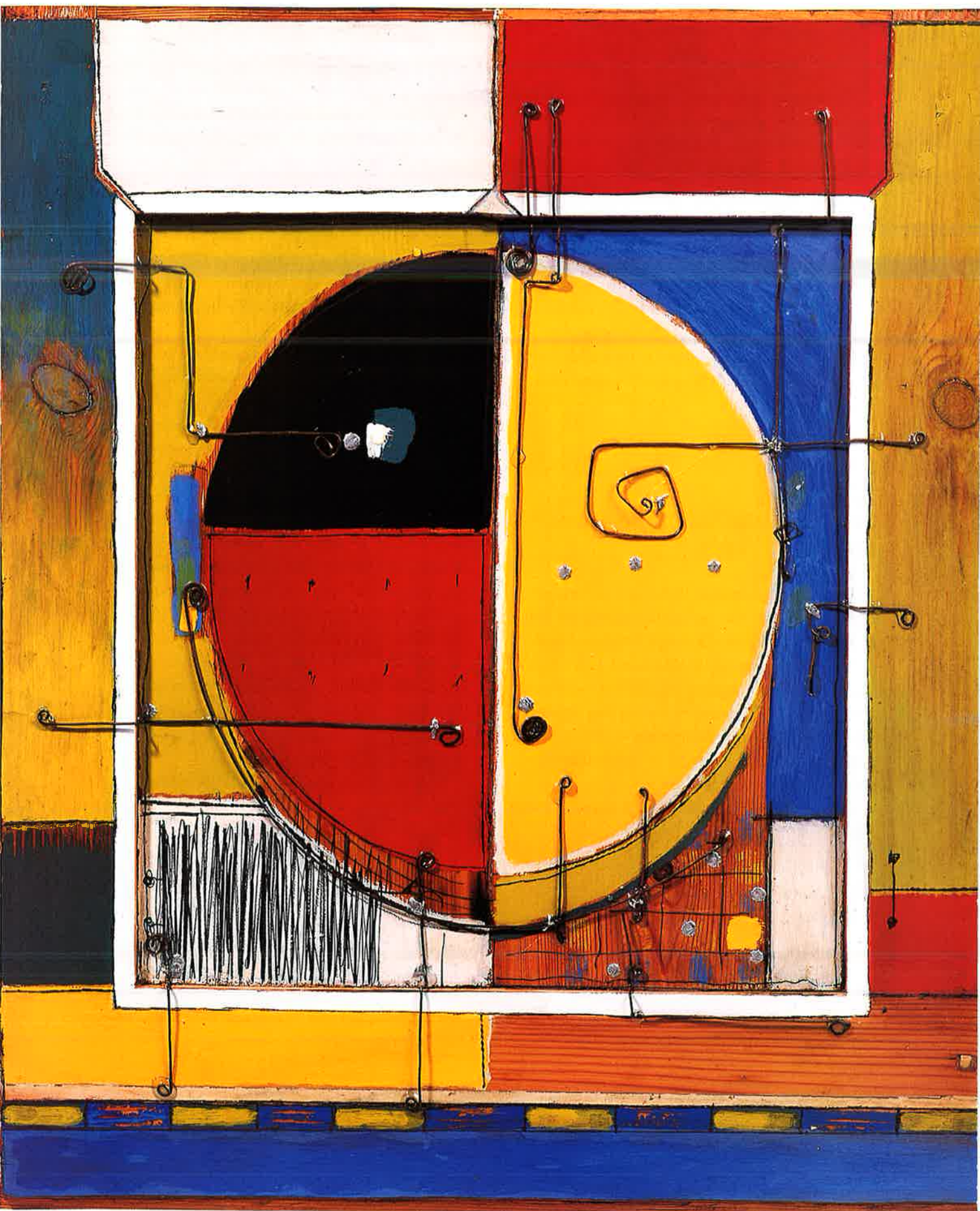
It is now possible to key in a Swedish personal identification or company number on your mobile phone and retrieve information about credit worthiness from Dun & Bradstreet's Web site. Cap Gemini is one of the first companies in Sweden to develop an operational WAP (Wireless Application Protocol) service.

Lars Lindqvist, marketing manager at Dun & Bradstreet, notes: "We have been working with Cap Gemini within the Internet area for three years. Its tried and tested skills in the field, and pronounced focus on Internet services, make Cap Gemini our working partner of choice in WAP services as well. We are delighted with this relationship; it has allowed us to become one of the first companies in Sweden to offer customers operational WAP services. In the long-term, it means that we can reach more customers and offer them more flexible ways of accessing our services."

Karl Andersson, chief consultant at Cap Gemini, continues: "Cap Gemini decided to invest in the Internet and WAP services at a very early stage. Although everyone talks about it, there are still few operational services on the market. Instead of just talking, Cap Gemini has focused on doing the work – a policy which has paid off."

Cap Gemini is developing WAP services on a broad front and is a member of the WAP Forum. Three years ago, for Dun & Bradstreet, Cap Gemini implemented the Nordic Internet service, D&B Interactive. The system enabled customers to use the Web service to retrieve credit status reports on both businesses and individuals. Since its start up, the service has attracted a growing number of customers. When Cap Gemini built this Web service, a basic infrastructure was developed at the same time, making the transition to WAP an easy one.





*Portrait of an Internet surfer on the Web: <http://perso.infonie.fr/sdeboey/>*

The Cap Gemini Group is Europe's leading management consulting and computer services firm with revenues of about 4.3 billion euros and a workforce of more than 39,000. The Cap Gemini Group is present in fifteen European countries, the U.S., Asia and South Africa.

For further information: [www.capgemini.com](http://www.capgemini.com)

## What the Cap Gemini Group does

*The  
Cap Gemini  
Group has always  
set ambitious goals  
in its relations with its  
clients:*

- *to assist them in managing their business;*
- *to mobilize their people in the interests of organizational change;*
- *to advise and provide them with the IT systems they need and, as required, to manage these systems on their behalf;*
- *to achieve tangible results quickly;*
- *to assure smooth passage to the network economy.*

### ■ Services

The new economy has two outstanding features: the growing separation of money markets from the traditional banking structures, and the increasing role of the customer in determining corporate strategy. In this constantly changing environment, the Cap Gemini Group is supporting its client companies in

their transition to the new economy (see details of the Group's e-Business strategy on page 63). This is being accomplished by means of a complete service offering and dedicated methodologies aimed at delivering concrete, quickly measurable results, and by bringing competitive advantage to these clients.

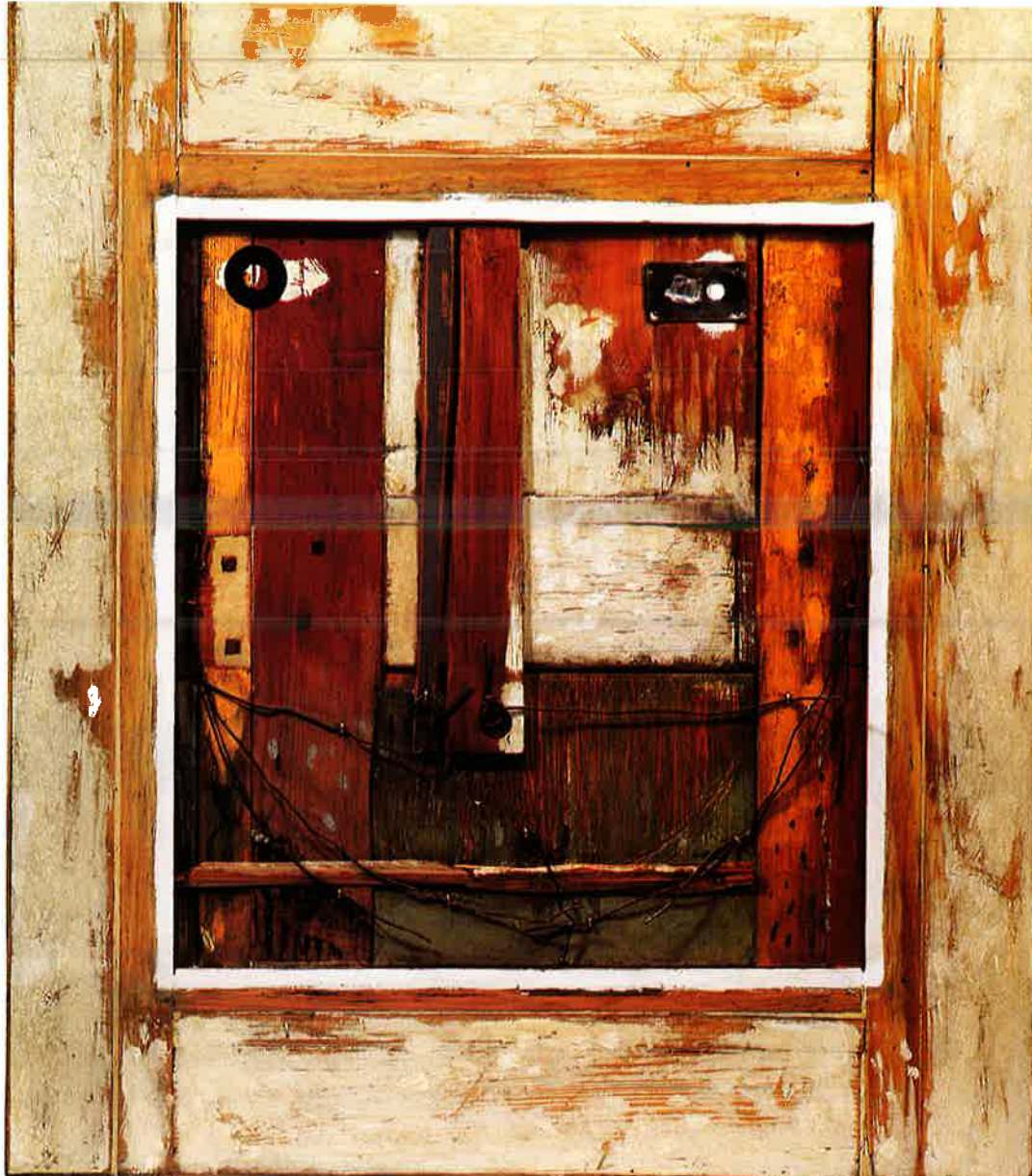
### *Management consulting and information systems*

As a result of their professional expertise, their knowledge and their experience in IT strategy formulation, operational processes, and implementation of the most advanced technologies, Cap Gemini Group consultants play a major role in improving their clients' performance. Gemini Consulting, the group's management consulting arm – which was given added strength by its merger with the French management consulting firm Bossard in 1998 – helps businesses to adapt to rapid developments in their markets by calling upon all its vast resources to formulate strategy, transform organizations and develop skills and products.

### *Systems transformation*

The Cap Gemini Group offers a complete range of services incorporating the most advanced techniques and proven methods, which are gathered and standardized within **PERFORM**, a methodology in use throughout the Group and ISO 9001 certified, as are most of its subsidiaries.





*Portrait of a child in a field – playing hooky –  
with a helium inflated ball in the stormy heat of September*

The goal of most IT projects is to make significant improvements in a client's business and thereby open the door to new opportunities for that client. These projects are generally of two types:

- customized software development, tailored to a specific client;
- systems integration projects, in which conception, architecture, development and implementation result from the involvement of several players (hardware manufacturers, software package editors, etc.).

### ***Systems Management***

Information Systems Management (ISM) responds to clients' expressed wishes to be free to concentrate on their core business and reduce the costs related to the operation and maintenance of their existing systems. The group has developed a range of services directly tailored to these concerns in which it assumes management responsibility for all or part of a client's IT resources: Applications Management (AM), Distributed Computing Services (DCS) and Central Computing Services (CCM).

## Management team

### *Directoire (Executive Board)*

Serge Kampf, Chairman  
 Geoff Unwin, Vice Chairman  
 Paul Hermelin  
 Pierre Hessler



*Left to right: Pierre Hessler, Geoff Unwin, Serge Kampf, Paul Hermelin.*

### *Operational Managers*

#### Gemini Consulting

- SBA 1 (United States)
- SBA 2 (United Kingdom, Ireland, Asia)
- SBA 3 (Nordic)
- SBA 4 (Benelux)
- SBA 6 (France, Switzerland, Austria)
- SBA 7 (Italy, Spain, Portugal)
- GMU • Insurance
- Life Sciences
- Telecom & Media
- Utilities
- Operational Control

Tony Robinson  
 Jean-Pierre Durant des Aulnois  
 Mike Meyer  
 Maurice Abell  
 Anders Skarin  
 Berend Brix  
 Jean Rochet  
 José Luis Gali  
 Steve Besselieu  
 Mike Standing  
 Alexandre Haeffner  
 Colette Lewiner  
 Chris van Breugel

### *Central Functions*

Financial Management	Frédéric Lemoine
Risk Management	Hubert Giraud
Communications & Cap Gemini University	Jacques Collin
Innovation & New Technologies	Jean-Paul Figer
TSD (Transnational Sales & Delivery)	Eric Lutaud

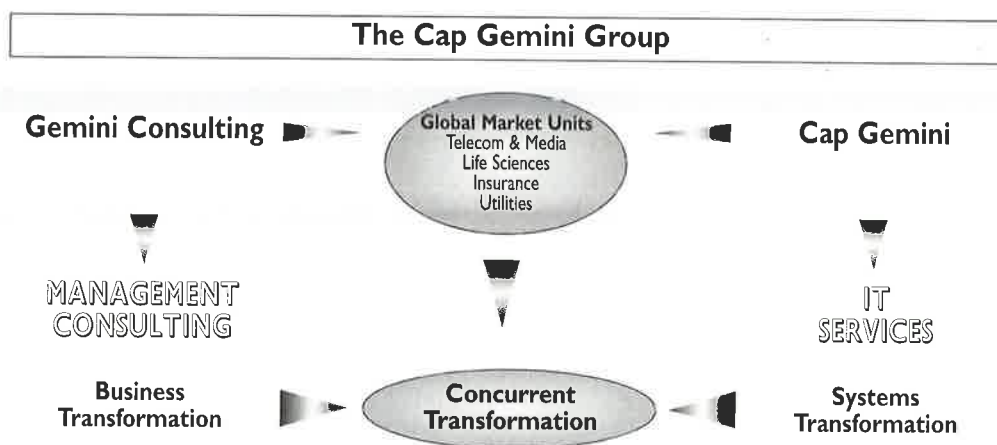
It is planned that the General Shareholders' Meeting, called for May 23 in Paris, will be asked to approve a change in status for Cap Gemini S.A. This modification will enable the company to return to a mode of governance consisting of a Board of Directors and Executive Committee. If this approval is granted, it is also planned that the former will be chaired by Serge Kampf, the latter by Geoff Unwin.

SBA = Strategic Business Area

GMU = Global Market Unit



## The Cap Gemini Group organization



*The Cap Gemini Group's transnational organization assures its clients of:*

- **strong sector specialization**, which guarantees an in-depth knowledge of the client's business and high value-added service offerings;
- **recognized expertise** in a number of specific areas such as management consulting, information systems management or the new Internet technologies;
- **geographic proximity** to clients' local decision-making centers.

### 1999 Revenue distribution by business line (based on revenue of 4.31 billion euros)

23%	Consulting
23%	Outsourcing
24%	Systems Integration
27%	Package Based Solutions
3%	Others

### ■ Recent developments

The Cap Gemini Group organization has evolved in accordance with market trends to adapt more effectively to clients' needs, and to facilitate the spread of its "Convergence" strategy, developed nearly five years ago. This strategy evolved from an awareness of the increasing role of a combined business/systems transformation range of services in the strategy and character of corporate activity. The joint involvement of Gemini Consulting and Cap Gemini, and the implementation of their respective skills, are unique assets when it comes to meeting the new expectations of many clients: improvement, transformation and renewal of their business, design and development of new systems, etc.

Created in 1997 and 1998, four Global Market Units (GMUs) offer a response which integrates management consulting with information systems to meet the "converging" demands of certain high-growth, highly globalized market segments. These specialized units today account for more than one-quarter of the group's business.

## Global Market Units

### ■ Telecom & Media

The Cap Gemini Group's long experience in the telecom industry is a strategic advantage enabling the company to address new market segments.

Among other service areas, Cap Gemini Telecom & Media focuses on Customer Relationship Management, customer administration, efficiency in service delivery, and IP (Internet Protocol) infrastructure and mobile Internet. In 1999, the GMU established partnerships with several additional leading industry players, including Cisco, the Sun/Netscape Alliance, and the number portability and mobile Internet divisions of Oracle. It also launched new service offerings addressing the needs of network operators and service providers for IP infrastructure and mobile Internet. The unit is an active member of the mobile industry's WAP Forum, the organizational body evolving the new standard for Wireless Application Protocol Internet communications for hand-held devices.

In 1999, Cap Gemini Telecom & Media completed most of the work associated with the delivery of the group's largest contract ever signed with a mobile operator, StarHub in Singapore. This contract entails development and implementation of a convergent billing system, call center, and front- and back-office subsystems to launch a new operator. Delivery is being managed by Cap Gemini Singapore.

The group also expanded its horizons in telecommunications with the acquisition, in April 1999, of the American company, Beechwood, for about 208 million euros. Employing 400 people at the end of 1998, the eleven-year-old company complemented Cap Gemini's existing capabilities in Customer Relationship Management and billing, with its deep experience in service and network management for telecom service providers. Major accounts of the company include AT&T, Nynex, Bell Atlantic and GTE.

### ■ Life Sciences

In the Life Sciences industry consolidation of the industry continues with the top ten companies accounting for 44 percent of market share last year, compared to 34 percent three years ago, and industry growth is accelerating, from 6.6 percent in 1996, to a predicted 8 percent compound annual growth rate over the next five years. Cap Gemini Life Sciences has a large portfolio of clients including Aventis, Lilly, and Roche, and is growing significantly ahead of the market, particularly in the areas of sales and marketing and discovery productivity.

The impact of the e-revolution is beginning to be felt in the Life Sciences industry in two main areas: firstly, enhancing internal processes to improve cost competitiveness, and secondly, providing enhanced customer service and focus. Cap Gemini Life Sciences is at the forefront of building new strategies in this field, working with its clients in areas such as e-procurement, e-supply chain and e-strategy.

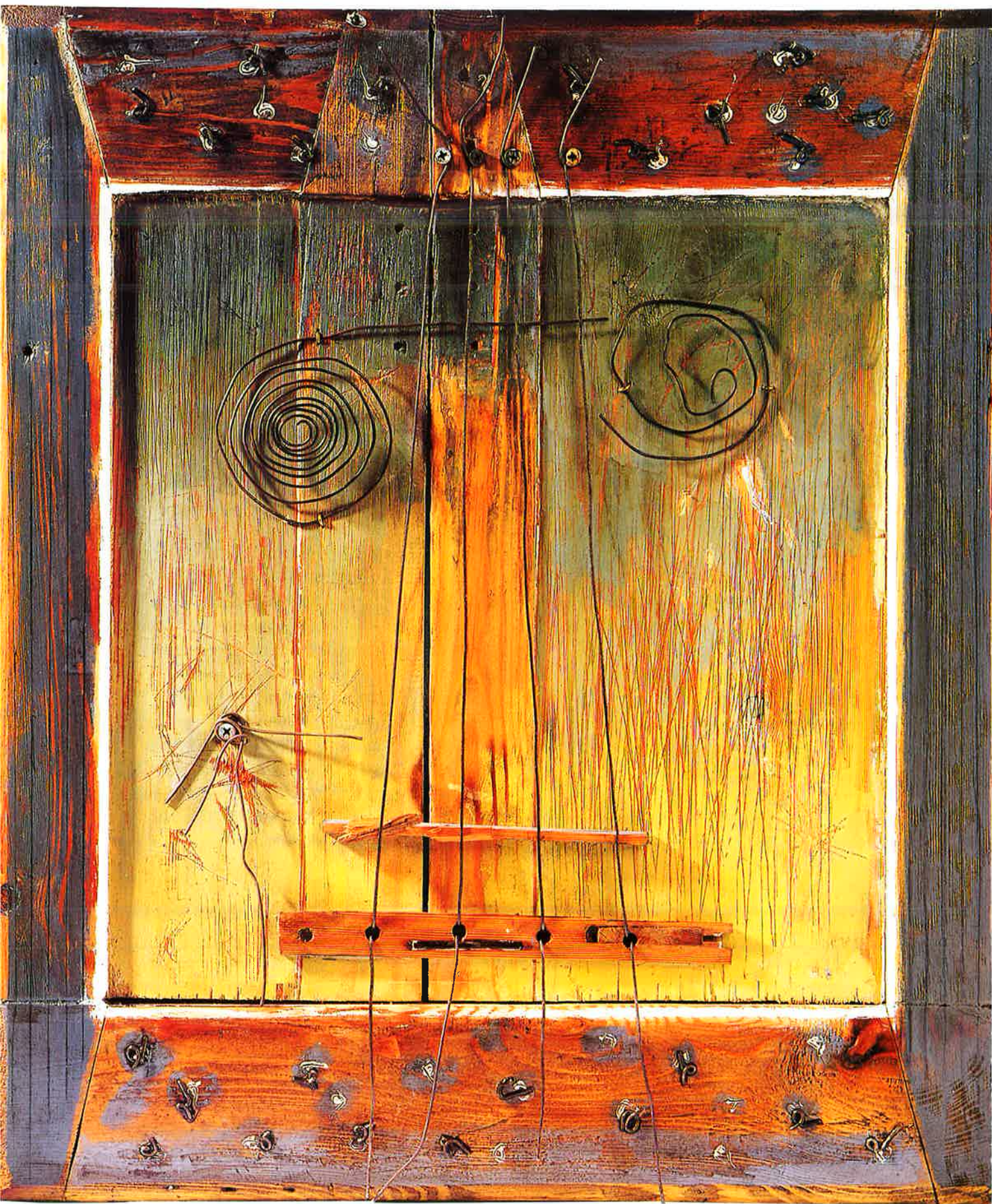
### ■ Cap Gemini Insurance

In a word, "intensity" describes the insurance industry market in this time of dramatic change. There is relentless market and margin pressure from industry consolidation, continued globalization, alternative distribution channels with competing products, increasing customer sophistication, and industry regulatory and compliance requirements. In addition, the fast pace of industry consolidation, aided by the advent of a common European currency and the potential for global reach provided by Internet-based e-Business, has quickly transformed the insurance industry into a truly global marketplace.

Cap Gemini Insurance is a world leader in partnering with clients to address these and other key business strategies. We combine our deep industry knowledge with business and technology consulting skills to develop and deliver services and solutions that help insurance companies worldwide.

In addition, recognizing that market leaders will possess a strong and seamless global franchise, we have expanded and more closely integrated our global market operations. This not only enables Cap Gemini to deliver services and solutions effectively at local, national and international levels, it also provides





*Portrait of a musician*



leverage to address quickly government-initiated regulatory changes that are altering the rules of the game.

In 1999, the insurance industry represented 8 percent of group revenues, growing at an annual rate of 14 percent.

### ■ Cap Gemini Utilities

Faced with an increasingly competitive, newly deregulated environment, utilities are being forced to focus their efforts on offering customers new services, managing commercial risks, improving asset management and reshaping their international strategic positioning. Cap Gemini Utilities' mission, therefore, is to deliver management and business consulting as well as information technology consulting and solutions to electric, gas and water utilities in Europe and the U.S.

The Group is positioned in the various segments of the utilities industry including generation, transmission, distribution, wholesale and retail, and energy services for electricity, gas, water and waste management.

With more than 1,500 consultants operating on utilities projects across Europe and the United States, and 1999 sales of 217 million euros, Cap Gemini Utilities – fully dedicated to this industry on the move – is helping many of the world's largest utility companies to harness the power of information and to grasp the power that the Internet and e-Business is exerting on the industry, thereby helping them to achieve "best in class" performance.

## Centers of Excellence (CoE)

### ■ Banking

The most dramatic changes in banking are being driven by the developments associated with Web-based technologies and the ever-accelerating improvements in the unit cost of information processing, storage and transmission. These are all leading to a move toward client-centric business models (from the old product- and branch-centric models of the past). Within these new approaches to market, banks need to increase their focus on Customer Relationship Management and the delivery of personalized services through a variety of integrated direct channels. While changing their front office in

this way, all players need to be progressively sensitive to cost, speed and accuracy in their back office operations. This will become increasingly important as banks become more closely scrutinized by their clients and regulators with both parties seeking to ensure that the banks deliver acceptable quality at a competitive price. Once again it is IT that provides the means to achieve these vital objectives.

With IT driving so much change within the banking sector, Cap Gemini has responded by developing a range of services specifically designed to help its banking clients define and execute competitive strategies. New service offerings cover Customer Relationship Management (CRM) and Integrated Channels (IC) in the front office, through Straight Through Processing (STP) in the back office to Post-Merger Integration (PMI) for all relevant functions.

Finally, when it comes to market structure, IT continues to play a fundamental role in the lowering of barriers to entry for new participants and the provision of opportunities to achieve economies and synergies between existing players through merger and acquisition activity.

### ■ Travel & Transport

The travel and transport industry has been at the forefront of the Internet revolution for a number of years. Twenty-five percent of all Internet transactions are travel related and approximately 8 percent of all bookings are done over the Internet, and the forecast is over 20 percent in the next three years. This is creating opportunities for new information-based travel and transport service companies and for other strong brand companies to include travel and transport in their total customer product offering.

Cap Gemini is at the heart of the changes within the industry and is helping clients to re-evaluate their channel and distribution strategies against new and evolving customer segments, their approach to Customer Relationship Management and, naturally, e-commerce. To achieve maximum leverage for our clients, the Group has formed strategic relationships with many of the key technology and travel and transport distribution players.

According to the World Travel and Transport Council, the travel and transport market currently accounts for 4 percent of Gross Domestic Product





*Portrait of a love-sick homohabilis motionless as the sun sets, with a smile and a small flower*

(GDP) of European countries and 7 percent of American GDP. Expenditure on the travel and tourism industry is expected to double within 10 years (from more than \$3 trillion in 1996, to more than \$7 trillion in 2006, accounting for 10 percent of all jobs and representing more than 10 percent of worldwide GDP). Global IT expenditure for the travel and transport sector is expected to reach about

\$111 billion in 2000 – 70 percent generated in the U.S. and Western Europe.

In this fast-growing market, the Cap Gemini Travel and Transport CoE has assisted and advised over 150 organizations around the world. Customers include SNCF, Virgin Trains, CSX, TSF, Europcar, Thomson Travel Group, NMBS-SNCB and SMART.



## ■ Automotive

Both Cap Gemini and Gemini Consulting have long been serious players in automotive. What changed in 1999 was the scale of our activity, with contracts won with GM and our selection as the integrator of downstream applications for PSA. Other major contracts won include Toyota, New Holland (Fiat) and Renault. In 1999, we won our first e-Business related project, implementing a Parts Management System with Saab.

It has been predicted that by 2005 there will be just six car makers left in the world. Problems of over-capacity, global competition and spiraling development costs are forcing car makers to seek new ways of cutting costs and boosting productivity. The mega-mergers of recent years (Daimler/Chrysler, Renault/Nissan, Ford/Volvo) will therefore continue and provide a rich breeding ground for our automotive expertise and dedicated solutions.

In Supply Networks, the pressure to please increasingly demanding customers by producing highly personalized vehicles is accelerating the search for the so-called "three-day car." In 1999, we designed and developed the basis for a new supply chain model for the automotive enterprise of the future, with our expertise in Internet-Derived Technology (IDT), plus our strengths in integrated advanced planning solutions. This model, combined with our CRM (Customer Relationship Management) solutions encompasses our e-Business formula for the automotive industry.

The opportunities for CRM are also great. One-third of the value of a new car is down to distribution, retailing and marketing costs, and car makers are well aware of the need to cut these costs. Our own CRM offering, which we tailored specifically to the automotive sector, will enable our customers to leapfrog to pole position in their dealings with customers.

With our unique coordinated global marketing approach, taking initiatives such as the Automotive Directors Forum to an international platform, Cap Gemini is aiming for true leadership in this marketplace. In 1999, the automotive sector generated a 63 percent growth from 1998, and looking forward, we expect to achieve similar performance.

## ■ Consumer & Distribution

Throughout the world over 1,000 Cap Gemini consultants are dedicated to the areas covered by the Consumer & Distribution Center of Excellence. This CoE, with its central office in Utrecht (the Netherlands), includes the Consumer Packaged Goods, Retail/Wholesale and Physical Distribution markets.

All of these segments are impacted by e-Business development: home shopping as an alternative to traditional retail outlets, producers eager to manage the impact of brand awareness in a virtual shopping concept, and logistics providers interested in getting the most out of the new wave of home deliveries of Web orders.

Concentration of companies has reached new levels. The impact on the mail, express and logistics markets has been exceptional. Acquiring or being acquired seems to be the unavoidable discussion in the boardroom. The new conglomerates are faced with issues like business process alignment, change of company culture and technical integration. Cap Gemini is at the center of these developments and provides strategic leadership, change management and pragmatic business and technical solutions to cope with these challenges.





*Portrait of a samurai twenty minutes before the fight*

## E-Business strategy



*Cap Gemini  
is already an  
e-Business leader,  
with over 150 advanced  
projects underway in  
various parts of the world and  
several thousand highly skilled e-Business  
consultants and IT professionals at work  
delivering them. Clients who know the Cap  
Gemini Group as an e-Business solutions  
provider include Statoil (in Norway), Virgin  
Trains (U.K.), BNP (France), ABN Amro  
(the Netherlands) and Systembolaget  
(Sweden).*

Within three years, about 40 percent of all consulting revenue will have an "e" component, and this figure will reach 100 percent before too long. Nevertheless, our success thus far is not strong enough to secure us a sustained leadership position in this market. It was therefore decided to launch a dedicated e-Business Unit (EBU) to respond immediately and directly to this rapidly evolving market. Thanks to the wealth of its resources and the breadth of its operations, the EBU should enable the group to become a real "heavyweight" in this market.

The creation of the EBU reflects Cap Gemini's strategy of establishing a solid presence in the field of electronic commerce as quickly as possible by using this new entity to strengthen its market position. Its strategy is twofold: on one hand, the engagement of the entire Group and all its resources; on the other, the creation of a dedicated unit to compete with and, it is hoped, to beat the "pure players" (the Internet start-ups) on their own turf. The EBU will actually look

very much like an e-commerce start-up: innovative, resourceful and creative. At the same time, it will have at its disposal the worldwide resources of a large transnational enterprise – its entrepreneurial spirit, its production standards and methods, its expertise and experience. Cap Gemini is creating a new type of e-commerce company today, well equipped to face the challenges of tomorrow.

Cap Gemini's e-commerce directions have been defined to meet certain clear-cut objectives:

- to develop e-Business strategies which enable clients to derive maximum value from the network economy;
- to integrate strategic insights, e-focused skills and change management capabilities around the Internet;
- to deliver proven platforms customized for rapid implementation;
- to enter into global contracts and partnership agreements.

Operational since the beginning of January 2000, and led by Laurent Sibille and Bob Scott (in charge of marketing and alliances), the EBU comprises more than 1,000 members – a number which is expected to double by the end of this year. The launch of this unit – both large enough to impress and small enough to concentrate on specific offerings and activities – is a clear demonstration of Cap Gemini's ambition to be a bold, proactive and truly global enterprise in the new network economy.





*Bitter portrait of a Phoenician merchant in Egypt*

## Introducing the Cap Gemini Group

### A few service offerings

#### ■ Supply Networks: delivering in the e-economy

Companies that have opened e-commerce sites or built new Customer Relationship Management (CRM) approaches have started to realize that their

new channels are putting new stress on their supply chains. These new channels enable more customized offerings, but delivering them may prove challenging. With speed and customization, companies realize they have to get organized to respond and adapt very



quickly to demand. Supply chains must become demand driven. Differentiation and competitiveness in the e-economy comes from the ability to deliver fast and market new offerings rapidly.

Most companies still consider their supply chain as starting from direct suppliers and ending with direct customers. Changing perspective means considering a more global network of players who all contribute to delivering to the end client – from suppliers of suppliers to the end client.

It is also necessary to change the notion of what a product is, and consider the whole set of services required for making the product usable for the end client. A personal computer requires peripherals, software, maintenance and support services, as well as financing, to become a fully marketable offer. Similarly, a car requires servicing, insurance, financing, gas and road assistance. Taking all these factors into account, the network is wider than traditionally thought. Global network coordination and efficiency is therefore what makes the difference.

Cap Gemini has created a comprehensive service offering to help companies come to grips with their supply network challenges. This offering focuses on the end client: demand management, e-procurement, and e-fulfillment.

From strategic procurement to implementing buy-side e-procurement applications, this offering enables Cap Gemini's clients to take full advantage of Web technologies and realize significant return on investment within very short time frames.

Involved with the initial steps of several e-marketplace actions, Cap Gemini has also developed an approach to this entirely new field. An e-marketplace is a new type of Business-to-Business e-commerce intermediary that enables buyers and sellers to meet and coordinate their commercial and supply chain activities through the Web. Fast development is predicted for this new business area in 2000 – over 100 percent growth.

The Cap Gemini Group makes use of a network of Supply Network Centers of Excellence around the world. It also participates in a methodology program called SCOR (Supply Chain Operation Reference). Our specialists are involved in the implementation and integration of very advanced Supply Chain Management software packages in close partnership with the best known developers worldwide

(Manugistics, SAP, i2 Technologies, etc.). Similarly, the group has started new alliances in e-procurement with Oracle and in e-fulfillment with Descartes.

Cap Gemini's Supply Networks offering is applicable to all businesses, in all sectors. Marketed under the name Supply Networks, this offering is made up of four principal components: Business Process Transformation, Package Implementation, Capabilities Development and ISM (Information Systems Management). This offering is backed by references acquired in all the major geographic areas in which the Cap Gemini Group is present, with clients such as Corus, GM, Exel, Modulex (Lego) and Merial.

The 50 percent growth experienced in 1999 in the field of Supply Networks has demonstrated clear market recognition of Cap Gemini's experience and approach. The Supply Networks Centers of Excellence are key tools for coordinating this deployment. In 2000, development in this area should continue to grow at a fast rate, especially in the area of e-procurement.

## ■ Customer Relationship Management (CRM)

Within enterprises the need to reach the most demanding and comprehensively informed customers, to establish a personalized relationship with them through a variety of communication channels, and to satisfy their needs, has become a real challenge. At the same time, marketing and sales models have undergone substantial changes: in the last decade a more systematic one-to-one approach has come into sharper focus. The goal for the company is to retain the loyalty of profitable customers through an efficient Customer Relationship Management (CRM) program. Cap Gemini's CRM service offering is defined as "growing enduring relationships with profitable customers," and is organized into four interdependent areas of activity:

- **Know:** A business needs to understand its market and its customers.
- **Target:** Attractive propositions with the appropriate product or service and channel need to be developed for different groups of customers.
- **Sell:** The company has to acquire customers and to deliver the product and service.



- **Service:** Investments in acquiring customers are wasted if they are not retained through ongoing service and customer care.

The Cap Gemini Group approach links the skills of the management consultants from Gemini Consulting with those of the IT professionals from Cap Gemini in the implementation of a complete solution adapted to the personalized requirements of each enterprise.

## ■ Enterprise Resource Planning (ERP)

Throughout the 1990s, Cap Gemini built a strong position in the market for large integrated program products supporting the back office functions of client organizations. In 1999 (as in previous years), Cap Gemini registered increasing revenues in this segment thanks to its ability to address clients' needs, its understanding of vertical markets, alliances with key application vendors and the ability to staff projects across geographical markets. Cap Gemini's base of ERP consultants has grown to approximately 3,500.

During 1999, the ERP market went through profound changes:

- lower growth rates of core ERP (the back office areas) as a consequence of the priority given to Y2K;
- the transition of business processes and IT solutions to an Internet-based world;
- the increasing importance of post-implementation services, targeted at optimization of the solution and improved IT management/outsourcing.

As companies prepare to enter the e-century, ERP is considered one of the most critical building blocks of the e-economy.

In response to the increasing demand, the Group successfully launched two new service offerings:

- **Enterprise Effectiveness**, enabling clients to obtain significant and measurable improvements in shareholder value expected from the ERP implementations by optimizing the solution, addressing additional needs and implementing necessary improvements.
- **Enterprise Solution Management**, enabling clients to increase the business value of strategic outsourcing and to assure that all business adjustments, upgrades, etc. take place on time and within budget, throughout the full life cycle of the ERP solution.

Due to European regulations for the coming two years, the market demands "euro-compliant" ERP

solutions. To address this issue, clients (both in and outside of the EMU market) require well-prepared euro conversions. Through its understanding of ERP and EMU/euro, Cap Gemini is well positioned to provide clients with a solid base for their migration to the world of e-Business.

## ■ Applications Management (AM)

With 15 percent of the market share in Europe\* and over 450 million euros of AM revenue in 1999, Cap Gemini is the European leader in the field of Applications Outsourcing.

More and more, applications are at the heart of a company's business and technology vision. Therefore, managing and evolving these vital assets has become paramount. There is increasing pressure on a company's applications environment to be an enabler for business focus, growth and change. Faster, cheaper, better is what today's business expects and requires of its applications services.

Cap Gemini's Applications Management service offers companies an alternative applications strategy based on focus, revitalization, visibility and control:

- **Focus** means aligning customers' application portfolios with their growing and changing business.
- **Revitalization** targets the productivity, efficiency and effectiveness of our customers' application services.
- **Visibility and control** over applications services and costs is what our customers gain when they leverage AM as their alternative applications strategy.

More and more of our AM services are delivered from our global network of Applications Management Service Centers (AMSCs). Our AMSC delivery model introduces industrialization, automation and mutualization into our customers' AM services. This translates into economies of scale, scalability, increased flexibility and greater service reliability for our customers. This innovative and unique AM delivery model enables customers to respond to changes in their business and service requirements with agility and speed, as well as to lower their risks. It offers the greatest opportunity for service improvement and cost reduction.

\* Source: 1999 PAC Study on Applications Management





*Portrait of a Mexican carpenter*

### ■ Applied Knowledge Management (AKM)

The AKM offering enables companies, government agencies and service providers to realize new sources of growth and value through the conscious, coordinated and operational management of the knowledge and know-how stockpiled by their people.

AKM enables individuals and organizations to perform their usual tasks better, to grow their activities, to detect new opportunities more rapidly and explore them in more innovative ways, making full use of the Internet technologies.





*Portrait of a wise child going to war*



The Cap Gemini approach aims at:

- **getting the players to communicate** in a more rapid, more efficient and better-organized manner using Internet tools such as e-mail, workflow, virtual office, etc.;
- **information sharing between in-house personnel and outside partners** using new resources such as intranet and extranet (knowledge servers, search engines, portals, groupware, directories, etc.);
- **managing and disseminating information intended for company "customers,"** using Internet and extranet tools such as electronic catalogues, data warehouses, multimedia systems, etc.

With its extensive experience in knowledge management and information technology, the Cap Gemini Group is offering AKM solutions adapted to individual organizations and their specific needs for change.

#### ■ **euroTRANSFORMATION Services**

With the first anniversary of the euro behind us, and the deadline for the final changeover getting closer, the euro is one of the top priorities for organizations in the eleven in-countries during the next eighteen months. Businesses should not underestimate the level of effort and resources involved. Carrying out only the first stage of the changeover, on December 31, 1999, had a major impact on the financial services industry, although under half of the overall conversion required for the euro actually took place.

The biggest challenges are still to come, such as adapting business processes to take advantage of the new market of some 300 million consumers, and the crucial technical modifications that will enable IT systems to adopt the euro as the new base currency. The second stage, which has to be completed by December 31, 2001, will affect every company in each of the eleven countries.

Cap Gemini has consistently advised its customers to start sooner rather than later. In many companies, euro transformation is the first major change program involving all functions. Also it cannot be ruled out that the market might experience a shortage of resources and expertise toward early 2001.

Though the adaptation of IT systems will be a significant element of the programs, it should be kept in mind that, contrary to the year 2000 issue, the euro is not about eliminating a technical shortcoming but about adapting to a new competitive environment and market conditions. From 2002 onwards, the "in countries" are likely to experience a dramatic reshuffling of industries and markets. Mergers and acquisitions so far have been focused within domestic boundaries. We believe that cross-boundary mergers and acquisitions in Europe will accelerate as the euro truly becomes the currency of 300 million people.

Last but not least, the euro will remove the barrier of multiple currency transactions that today holds back some users from shopping online and some vendors from launching electronic-commerce sites. The Internet and e-commerce, coupled with the euro, are going to put more pressure on companies to equalize their prices across the board in Europe.

The Cap Gemini Group has been helping companies to adapt to the euro since 1995, and has taken charge and overseen more than 500 euro projects.

In 1999, Gartner Group analysts confirmed the leadership of the Cap Gemini Group in the EMU market with its global reach, wide range of services and early establishment of EMU expertise.





*Portrait of a mathematician*



# Consolidated financial statements

The summarized financial information presented below is extracted from the "1999 Financial Report."

Summarized consolidated statement of income for years ended December 31, 1997, 1998 and 1999			
(in millions of euros)	1997	1998	1999
<b>Operating Revenue</b>	<b>3 076</b>	<b>3 955</b>	<b>4 310</b>
<b>Operating Income</b>	<b>250</b>	<b>406</b>	<b>469</b>
Net income			
before amortization of goodwill	145	218	294
<b>Net Income</b>	<b>116</b>	<b>188</b>	<b>266</b>
including dividends paid	33	58	78 <sup>(*)</sup>
<b>Net Margin</b>	<b>3.8%</b>	<b>4.8%</b>	<b>6.2%</b>
- Number of shares as of December 31	61 198 877	69 130 658	77 945 108
- Earnings per share			
based on number of shares (in euros)			
* before amortization of goodwill	2.37	3.15	3.77
* after amortization of goodwill	2.73	3.41	

\* recommended to the General Shareholders' Meeting of May 23, 2000

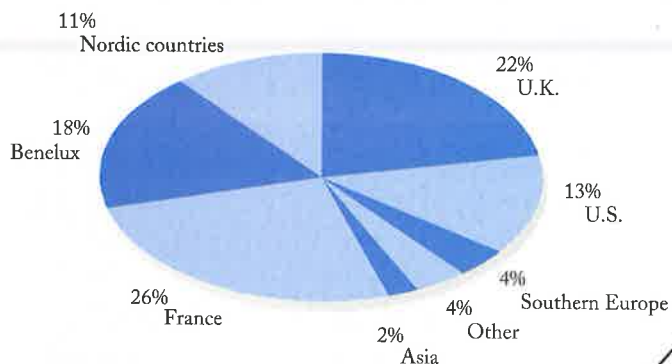
	1997	1998	1999
<b>Number of employees</b>			
<b>Average number of employees during the year</b>	<b>28 059</b>	<b>34 606</b>	<b>39 210</b>
<b>Total number of employees</b>			
<b>as of December 31</b>	<b>31 094</b>	<b>38 341</b>	<b>39 626</b>
<b>including consultants and engineers</b>	<b>26 616</b>	<b>32 855</b>	<b>33 944</b>

Summarized consolidated balance sheet as of December 31, 1997, 1998 and 1999			
(in millions of euros)	1997	1998	1999
<b>Assets</b>			
Intangible assets	1 333	1 281	1 589
Other assets	342	342	361
<b>Total non-current assets</b>	<b>1 675</b>	<b>1 623</b>	<b>1 950</b>
Accounts and notes receivable (net)	809	941	1 063
Other current assets	447	1 124	924
<b>Total assets</b>	<b>2 931</b>	<b>3 688</b>	<b>3 937</b>
<b>Liabilities and shareholders' equity</b>			
Shareholders' equity, including minority interests	1 565	2 248	2 638
Long-term liabilities	551	278	238
Short-term liabilities	815	1 162	1 061
<b>Total liabilities and shareholders' equity</b>	<b>2 931</b>	<b>3 688</b>	<b>3 937</b>
<b>Net cash /(net debt)</b>	<b>(249)</b>	<b>577</b>	<b>508</b>

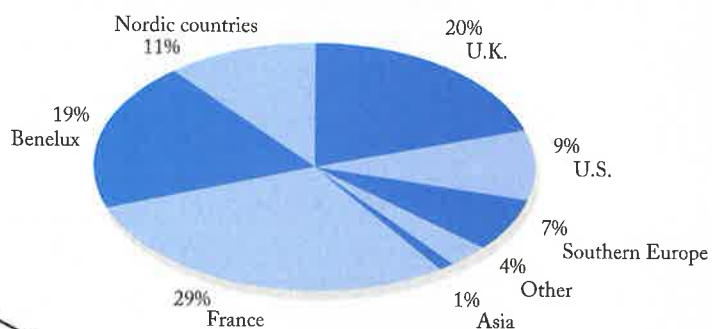


## Activity analysis

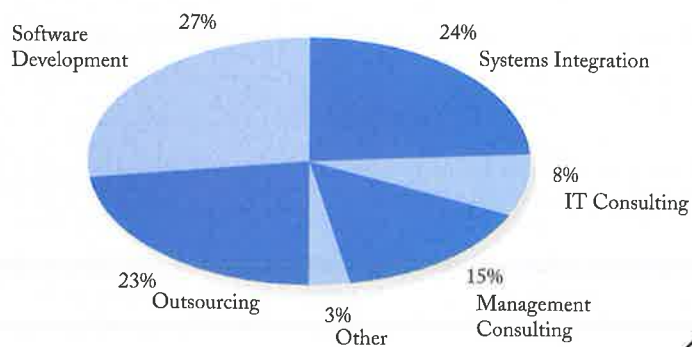
**Cap Gemini Group 1999 revenue breakdown by country (all service lines combined)**



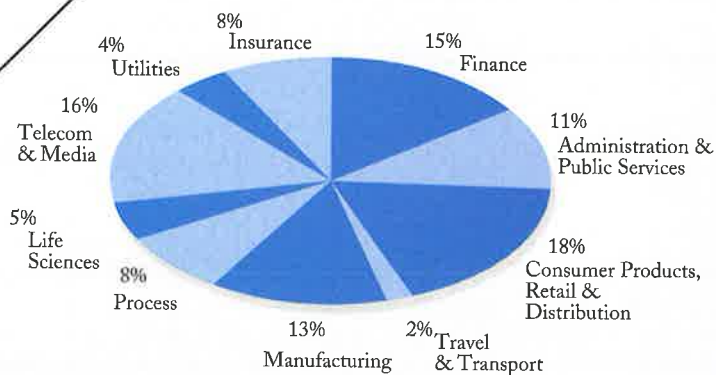
**Employee breakdown by country at December 31, 1999 (based on workforce of 39,626)**



**1999 Revenue distribution by business line**



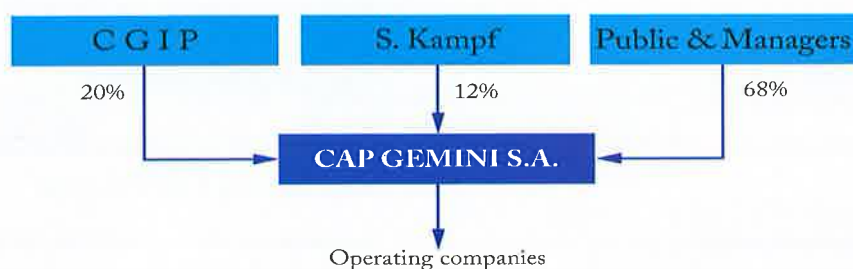
**1999 Revenue distribution by sector**



## Stock Exchange overview

### Distribution of capital on December 31, 1999

after the August 1999 share issue in connection with the tender offer for minority interest in Cap Gemini N.V.



### Dividends

Year ended December 31	Total dividend (in millions of euros)	Number of shares	Dividend per share
1996	18	60 356 666	FF 2
1997	33	61 198 877	FF 3.5
1998	58	69 130 658	FF 5.5
1999	78	77 945 108	1 euro *

\* recommended to the General Shareholders' Meeting of May 23, 2000

Cap Gemini is a company quoted on the First Market of the Paris Stock Exchange and, since July 20, 1999, on the Amsterdam Stock Exchange. At December 31, 1999, the capital of the company was made up of 77,945,108 shares (Sicovam code: 12533). Between January 1, and December 31, the share price went from 136.7 euros to 252 euros.

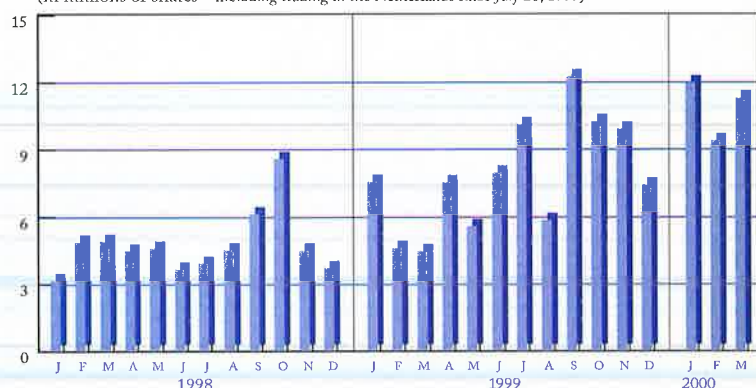
Share price from January 2, 1998, to March 31, 2000  
(in euros)



Market capitalization: January 2, 1997, to March 31, 2000  
(in billions of euros)



Monthly trading volume from January 1998, to March 2000  
(in millions of shares - including trading in the Netherlands since July 20, 1999)





## Principal Locations

### Cap Gemini Group – Corporate Headquarters

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#### Cap Gemini Service

Paris 33 (0)1 47 54 50 00

#### Cap Gemini University

Béhoust 33 (0)1 30 88 38 38

#### Cap Gemini Insurance

London 44 (20) 7434 21 71

#### Cap Gemini Life Sciences

London 44 (20) 7434 21 71

#### Cap Gemini Telecom & Media

Paris 33 (0)1 47 54 52 00

#### Cap Gemini Utilities

Paris 33 (0)1 47 54 52 00

#### Cap Gemini France (33)

*(Note: If dialing these numbers within France, add a 0 before the first digit.)*

Paris	Corporate Headquarters	1 47 54 50 00	Marseilles	South East Division	4 91 16 57 00
	Exploitation Division	1 49 24 53 00	Montpellier	South East Division	4 67 20 92 92
	Finance Division	1 53 64 44 44		Banking Systems Division	4 67 20 64 90
	Industry Division	1 49 01 80 00	Mulhouse	North East Division	3 89 36 33 66
	Institute Division	1 44 74 24 10	Nancy	North East Division	3 83 95 85 85
	ISM Division	1 41 26 51 00	Nantes	Exploitation Division	2 51 84 95 02
	Itmi Division	1 49 01 86 57		West Division	2 51 88 15 15
	Public Services Division	1 49 01 70 00		West Division (Training Center)	2 40 20 24 32
	Tertiaire Division	1 49 01 70 00	Nice	South East Division	4 93 72 43 72
	Telecom Division	1 49 00 40 00	Niort	West Division	5 49 06 84 30
Aix-en-Provence	Exploitation Division	4 42 97 17 43	Orléans	West Division	2 38 24 01 01
	South East Division	4 42 97 13 14	Pau	South West Division	5 59 84 12 23
Bayonne	Industry Division	5 59 25 34 00	Rennes	Exploitation Division	2 23 35 40 10
Bordeaux	Exploitation Division	5 57 92 70 50		West Division	2 99 12 55 00
	South West Division	5 56 46 70 00		Telecom Division	2 99 27 45 45
Brest	West Division	2 98 30 46 30	Rouen	West Division	2 32 76 41 80
Caen	West Division	2 31 94 51 20		Exploitation Division	2 35 12 20 20
Clermont-Ferrand	Rhône-Alpes Division	4 73 28 23 81	Strasbourg	North East Division	3 88 56 86 10
Grenoble	Itmi Division	4 76 41 40 00	Toulouse	Exploitation Division	5 34 60 60 40
	Rhône-Alpes Division	4 76 04 23 30		South West Division	5 61 31 52 00
Le Mans	West Division	2 43 57 45 00	Tours	West Division	2 47 60 67 60
Lille	Exploitation Division	3 28 36 30 20	Valence	Rhône-Alpes Division	4 75 41 80 22
	North East Division	3 28 36 31 31			
Lyons	Exploitation Division	4 72 74 03 26			
	Rhône-Alpes Division	4 72 75 48 60			

## Europe

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<b>BELGIUM (32)</b>	Cap Gemini Belgium
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Turku	(2) 251 26 66
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Munich	(89) 28 622 0
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Dublin	1 661 32 66
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La Spezia	(0187) 98 48 11
Milan	(02) 661 341
Naples	(081) 787 9894
Padua	(049) 76 1066
<b>Rome</b>	<b>(06) 231 901</b>
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<b>LUXEMBOURG (352)</b>	Cap Gemini Luxembourg
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<b>Madrid</b>	<b>(91) 432 81 00</b>

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Jönköping	(36) 34 85 00
Kalmar	(480) 421 800
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Karlskrona	(455) 308 600
Karlstad	(54) 14 63 00
Linköping	(13) 24 81 00
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Delaware Valley (Pennsylvania)	(610) 668 4626
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Freehold (New Jersey)	(732) 358 8900
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Hudson (Ohio)	(330) 342 9182
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Copenhagen	45 (39) 77 86 00
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Helsinki	358 (9) 7251 7251
Johannesburg	27 (11) 280 6000
Lisbon	351 (1) 353 7688
London	44 (20) 7340 3000
Lyons	33 (0) 4 78 63 60 50

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Milan	39 (02) 773 321
Munich	49 (89) 55 19 60
New York	1 (212) 768 20 66
Oslo	47 (24) 12 85 00
Paris	33 (0) 1 41 08 40 00
Riga	(371) 7 320 722
Saint Petersburg	7 (812) 326 18 05
Singapore	(65) 484 31 88
Stockholm	46 (8) 458 60 00
Tokyo	81 (3) 55 45 70 01
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A publication of Cap Gemini

Text: Corporate Communications

Illustrations (1998 & 1999): Christophe Conan – Cover: *Hysterical portrait of an actor*

Design: Corporate Communications – Les éditions stratégiques – Gutenberg on line

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Christophe Conan looks at the human race through the eyes of an anthropologist. With his singular and poetic vision, he records the profound changes that our species has undergone from its beginnings right up to the present day. The result is quite amazing, as is the range – from purely pictorial techniques to portraiture. This variety makes it possible for the artist to personalize his representations, to seize the character, if not the state of mind of his subject. The poetic dimension of these works derives from their symbolic, universal treatment in which earthly or geographic boundaries are cast aside in favor of a virtual world where all members of the great human family rub shoulders.

The exhibition "PORTRAITS: from the australopithecine to today" was presented in its entirety at the Espace Diderot de Rezé (France). The exhibit was mounted by Art et Culture à Rezé, with the support of the Club Entreprises et Culture.

The reproductions shown here \* were kindly made available to us by the artist.

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**CAP GEMINI**

*Ideas People Technology*