Innovation 2.0
Business Transformation
Mobile Instant Messaging

First Person Interview:
Peter Bazalgette, Endemol

New Patterns of Consumer Behavior
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Welcome to the Spring/Summer edition of Insights.

The reshaping of the telecom and media industries through convergence is continuing apace. With a low cost of entry into the Web world, many new players have emerged offering innovative applications and are now looking for ways to generate revenue from them. The advertising industry is shifting online fast, creating new sources of value to those who can monetize their audiences effectively while also challenging traditional business models. And creating an addictive content and entertainment experience is fast becoming an imperative to engage consumer attention and unlock new revenue streams.

We had the opportunity to discuss these issues with Peter Bazalgette, Chief Creative Officer for Endemol, for our First Person section. British newspaper The Independent referred to Peter as possibly “the most influential man in British television,” which is testament to his contribution to the content and entertainment industry. Peter's understanding of the value of content as well as audience preferences makes him one of the leading lights in the format and gameshow industry worldwide. He and I discussed the major disruptions currently reshaping the content and broadcasting industries and the complexity of making content available online. Peter also shared his opinions on the most appropriate business models for Web-based content and reflected on the need to leverage content across several platforms.

Consumers, especially the 15–24 age group, are key to shaping the way we communicate and consume content. We start our Industry Insights section with a study from the TME Strategy Lab that analyzes new patterns of consumer behavior, drawing key implications for players in telecom and media. The mobile device, often considered the “first screen” by many young users, is also playing a key role in how we communicate and consume content. In our second article, we focus on the prospects for mobile instant messaging and analyze its impact on overall messaging revenues. We go on to discuss the key success factors for a winning digital distribution strategy, suggesting a roadmap for companies to develop a compelling digital entertainment offering. Finally, with an increased focus on delivering both fixed and mobile services in a timely and cost-effective manner, we examine telecom and media players' strategic issues in supply chain management.

Key lessons on how to survive in the fast-changing telecom and media landscape make up our first report in the Management Insights section. We draw out key learnings from the innovation process and practices of the main Internet companies to suggest important action points for telcos. Following a recent study on business transformation, we asked telecom industry leaders what challenges and lessons can be learned from over 10 years of implementing major transformation programs in their organizations. Lastly, with the substantial increase in both the number and the size of M & A deals in the telecom and media industries, we analyze the growing importance of Private Equity in telecom and media and highlight the challenges to value creation in this dynamic and complex sector.

I hope you find this edition of Insights insightful and thought provoking. If you have any comments or would like to discuss any of the issues further, then please get in touch.

Didier Bonnet
Managing Director
Telecom, Media & Entertainment

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The history of the telecom and media sector is littered with unexpected successes and surprising failures. Video calling, for instance, was thought to be the “killer 3G application” by many mobile operators, but uptake of the service is still limited with less than 5% of 3G subscribers using the service in the UK and France in 2006. Other than price and quality, most operators underestimated visual privacy concerns when assessing demand for the service. Similarly, no one anticipated the phenomenal growth of SMS, which grew from 10 billion to 100 billion messages sent every month worldwide between 1999 and 2006. These examples reflect the difficulty in predicting consumer behavior, which is set to become even more complex with the increasing number of options available to consumers for communicating and consuming media.

To anticipate how consumer behavior will evolve, it is important to identify early signs of change in how people communicate, entertain and interact with each other. A good barometer of the impending developments is the evolution in the attitudes of 15–24 year olds, an age group that is often at the forefront of cultural and technological change. This group, for instance, was the early adopter of the Internet, embracing the medium much faster than the rest of the population: 65% of American teens was using the Internet in 1998, a penetration figure that was only reached by the overall US population in 2005. Products and services popularized by this age group often subsequently gather momentum in the wider population. Consider that video games were predominantly played by teenage boys in the 1980s before they developed into a mainstream leisure activity. The average age of British video gamers has risen from 21 in 1998 to 27 in 2006, belying that gaming is solely a teenage obsession.

Abstract: Predicting consumer behavior has always been one of the key challenges in the telecom and media sector. Detecting any early indicators of change will be crucial for telecom and media players to gain insight and ready themselves for whatever awaits them in the future. The habits of the 15–24 year old age group, the technology-savvy generation, herald the changes in the way we will communicate and consume content in the future. Capgemini’s TME Strategy Lab analyzed these so-called “digital natives” in order to identify emerging patterns of consumer behavior. The attitudes of this generation are underlined by the need to control, socialize, create and make efficient use of their time. To take advantage, telecom and media players need to redefine their relationships with their customers, offering services that increase consumer involvement as well as create addictive experiences.

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Therefore, understanding how the 15–24 year old age group consumes telecom and media services can give us important insights into what is in store for the industry.

In this report, Capgemini's TME Strategy Lab analyzes 15–24 year olds' use of technology to communicate, entertain and socialize in order to identify emerging patterns of consumer behavior. We begin by studying how our consumption of communication and media services has evolved over the past few years. We go on to consider how telecom and media players should respond to these emerging patterns of consumer behavior in order to take advantage of the arising opportunities.

**The Media and Communications Consumption Boom**

Over the past few decades, the telecom and media sector has undergone dramatic changes as choices available to consumers have increased manifold. For example, content producer Endemol offers its Big Brother programs not only on TV but also on the radio, the Internet and mobile devices, in full length as well as short format. Consumers can also interact with the programs through voice calls and SMS to vote, win prizes and send suggestions to the production team.

Consumers' use of personal digital devices has also accelerated in the past few years. In addition to a TV set, an average Internet user in the UK, for example, now owns three to four devices, with 85% owning a PC, 57% a WAP-enabled phone, 53% a games console and 48% an MP3 player. This world of choice is praised by users who communicate and consume media more than ever before. In the UK, for example, weekly time spent on communication and media activities has increased by 15% from 53 hours to 61 hours per week between 2001 and 2006.

Looking at media use specifically, we estimate that time spent per week increased from 50 hours to 56 hours from 2001 to 2006 in the UK (see Figure 1). Consumers continue to be...

![Figure 1: Estimated Time Spent on Various Media Activities in the UK](image)

interested in TV and music, spending nearly 80% of their media time on such activities. However, the growth in media use comes from new types of content such as gaming and interactive Web content like online shopping, user-generated content or social networking.\(^7\) Gaming, in fact, is the single biggest contributor to the increase in media time over the past 5 years, accounting for 66% of the growth in media use. The average time spent on gaming per person in the UK nearly tripled over 2001–2006. This is due to the availability of higher quality games on various platforms, ranging from traditional consoles to PCs and mobile phones. The other key growth area, interactive Web content, has contributed to more than 30% of the increase in media use. In particular, user-generated content and social networking are growing rapidly, gaining significant traction among the youth. In the UK in 2006, online 12–17 year olds spent three times as much time as an average user engaged with such content.

Additionally, we communicate more than ever before. In France, time spent on communication doubled to 4.5 hours per week over 2000–2006 (see Figure 2). Consumers have also started to communicate differently, with time spent on texting overtaking voice. Usage of IM, email and SMS grew dramatically during this period. The Internet played a significant role, with consumers spending more time on the Internet and dedicating 40% of this time to IM and email. IM is particularly popular among the younger generation; for example, 75% of US online teens use IM compared with only 42% of online adults.\(^8\) The preference for text communication is on the rise because it is not only cheaper but also non-intrusive, enabling users to be always connected discreetly, wherever they are. Consumers are also considering new ways of communication such as blogging to be in touch with the online community. Indeed, two thirds of bloggers in France in 2006 said that they considered their blog to be a communication tool.\(^9\)

### Changing Behavior of 15–24 Year Olds

Telecom and media usage is changing rapidly. To understand where these changes will lead us, it is important to look at the behavior and attitudes of 15–24 year olds. The new patterns of behavior are especially pronounced among the younger generation, the pioneers of the digital age. The under-25 year olds are the first “digital natives” who grew up surrounded by devices. In the US, for instance, more than two thirds of all 8–18 year olds have a TV in their bedroom, nearly half have a video games console, and more than 30% have a computer.\(^10\)

Our analysis shows that the behavior of this generation is characterized by four key themes that summarize the new media and communication equation. This younger generation desires Control, with the ability to access content and communicate whenever they choose, regardless of location. Impatience is also characteristic of this age group, as it seeks to make the most efficient use of its time through multitasking and “media snacking.” The youth are also constantly engaged in Community Interactions, sharing opinions on what content is worth seeing or experiencing. Additionally, they are looking for avenues of self-expression that enable them to showcase their creativity and portray their Originality.

### Control

For a long time media consumption has been a lean-back, passive experience, constrained by broadcasting schedules. However, younger users are playing a more active role in controlling and deciding how and when they want to consume

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\(^7\) Examples of user-generated content commonly referred to as “Web 2.0,” include YouTube, DailyMotion or Flickr. Social networking websites include MySpace or Facebook. cited in text

\(^8\) Pew Internet Report, “Teens and the Internet,” July 2006.

media. They are starting to move away from platforms such as linear TV and radio that do not enable content to be consumed in a flexible way. Take broadcast TV, for instance, which forces users to consume content according to a schedule. The younger generation is spending less time in front of the TV set than other age groups. The average time spent by 15–24 year olds in the UK on TV viewing on the TV set has declined by nearly 1.5 hours over 2001–2006, compared to an increase of 11 minutes for other age groups for the same period.\(^\text{11}\)

However, this does not mean that the younger generation is abandoning traditional media; in fact, they are increasingly relying on services that let them access content whenever they want (see Figure 3), such as Personal Video Recorders (PVRs) and Web TV. Consider, for example, that nearly 38% of the youth in the UK now consumes TV content on a PC compared to 24% of all individuals.\(^\text{12}\)

The same is true for radio, with 40% of 18–26 year olds listening to radio online compared with a 25% average for Internet users in the US in 2006.\(^\text{13}\)

**Impatience**

Consumers today are living in a world of hyper-choice. They own multiple devices that provide access to a very wide range of communication and content services. To make the most of their time, they are increasingly consuming several types of content at once, rapidly switching attention from one source to another, a form of multitasking (see Figure 4). This is a key trend for all demographics and especially for 15–25 year olds. In the US, 25% of teenagers’ media time in a typical day consists of overlapping media experiences.\(^\text{14}\)

This is creating a generation of time-starved users, juggling various activities at the same time, always on the lookout for something better to invest their attention in, eventually resulting in attention thinning.

In order to maximize the “efficiency” of their media time, younger users “pull” content through search engines and RSS feeds that let them only consume the bits of content that are relevant to them. They are also looking to consume content in stripped down, fragmented formats that one could call “micro-chunks.” Content is thus increasingly “snacked” under the form of short TV recaps, sports highlights, user-created short films, or single music tracks. As a result, short-form content from media players has also started to debut on the Internet. For example, in April 2007 Michael Eisner, former Disney CEO, launched a series of 90-second “webisodes” called “Prom Queen” on sites such as MySpace and YouTube, with distribution on mobile handsets planned for the second half of 2007.\(^\text{15}\)

The need to manage time efficiently is leading to a generation of “ad-avoiders,” ready to shut out advertising inputs if it is not perceived as entertaining or informative. Two thirds of 16–24 year-olds in the UK indicate that they largely ignore TV ads. This compares to less than a
quarter of those aged 65 or older. Respondents of a survey in the UK deemed skipping through ad-breaks at “30 times normal speed” as the most attractive feature of the PVR.

Community Interaction
The influence of their peer group on the younger generation is nothing new. However, the Internet has opened up the possibility for today's younger generation to interact with a global community at any time, anywhere. This age group continuously exchanges opinions on what is worth seeing, reading and downloading. Conversations between peers then arise around that content in the form of blog comments, links sent by email, IM discussions, merging communication and content into what one could call “conversational content.” Indeed, for an increasing number of young users, content gets added value from the ability to consume and discuss it collectively. Consider for instance that 30% of the volume of the blogosphere is made up of comments posted by blog readers. These comments are actually perceived by blog readers as being just as valuable as the original post.

Blog postings can create a word of mouth effect that can propel the popularity of content from a core group of fans to the mainstream in no time. Witness the popularity of the relatively unknown UK artist Lil Chris who rose to fame mainly due to the buzz created by online communities. Before his single reached the number 3 position on the UK charts in September 2006, nearly 65% of the traffic on his website originated from online communities such as Bebo and MySpace. Members of online communities do not just discuss their favorite bands or films, but are also keen to share their own knowledge and experiences with others. This is evident from the growth in user contribution to sites such as Tripadvisor, Wikipedia, and Yahoo! Answers. Tripadvisor is a travel information site attracting more than 20 million unique visitors per month, where the content is entirely provided by users themselves who have contributed nearly 5 million reviews on hotels and tourist facilities. The online encyclopedia Wikipedia is one of the most trafficked sites in the world and is fed exclusively by hundreds of thousands of volunteers who dedicate their time to the creation of new articles and the improvement of existing ones.

These online community dynamics alter traditional patterns of trust: consumers, especially the younger generation, have more confidence in peer-generated or “crowd-sourced” content (see Figure 5). Online users are also increasingly relying on peer recommendations to make purchase decisions. In Europe, more than 50% of consumer electronics online buyers have checked product reviews from other customers, and 30% made a purchase on the Internet based on peer reviews. Some companies are successfully leveraging user reviews and recommendations on their sites. For example, Netflix, an online movie rental service, has 5.7 million customers and members select approximately 60% of their movies based on user recommendations tailored to their individual tastes.

Originality
Young people also want to stand out in their community and be regarded as cool, original, fun and independent-minded. The Internet has opened up a whole new world for this generation to indulge in creative self-expression and showcase their individuality. The younger generation is especially active in developing creative online identities through personal profiles on social networking sites such as MySpace and Facebook. Over half (55%) of online American teens have created a personal profile on these websites, totaling 170

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Changes in consumption and consumption behavior are reshaping the media and entertainment industry. The younger generation is already reshaping the traditional, static, non-interactive and pre-packaged media experience. This presents several issues for players in the TME industry in terms of service offering as well as marketing. For instance, consumers now have an outlet to lend their expertise, opinions, reviews, recommendations and creativity and are playing an increasing role in influencing peers’ consumption. This can have a significant impact on the overall view of the marketers’ product, service and brand. Dell, for example, faced widespread consumer ire when Jeff Jarvis, an online blogger and a journalist, posted a blog on his frustration at dealing with the company’s customer service and support. Telecom and media players, therefore, need to redesign their traditional relationships with the consumer, leveraging consumer involvement and insights at every stage of the product lifecycle and creating new sources of value to gain consumer attention.

I. Involve consumers in the creative/development processes

Internal sources of innovation such as marketing and R&D departments can be complemented by the active involvement of consumers. Consumers are increasingly interested in giving their opinions and expressing their ideas online. This trend towards greater user participation can be leveraged for product development, where consumers can become valuable test beds and an important source of ideas. For instance, operators could establish an “ideas blog,” inviting suggestions, comments and ratings, or they could open up some of their applications to enable mobile mash-ups. Swisscom Mobile, for example, has set up an online “lab” that allows users to test beta versions of products, give feedback and submit new ideas. Consumer-led innovation can help strengthen the ties between customers and brands, because consumers feel empowered by their involvement in the product development process. It can also benefit companies’ bottom lines by ensuring that product development resources are deployed according to consumers’ initial responses, thus increasing the chances of meeting consumer needs.

II. Recreate source of value to the consumer

The traditional provider–end user relationship needs a refresh as consumers desire more information, participation and control. Because ads can be easily skipped by tech-savvy and time-starved consumers, brands need to find ways to recreate engagement by adding value to their marketing message. One way for players to create value is to entertain them or enable them to improve their skillsets. This is what Nintendo did, for example, creating viral videos that advertise their Wii. The videos were uploaded on YouTube for everyone to stream, link to and comment on and were seen by over a million people on the Web.

To showcase their talent, young users are also increasingly using new professional-grade technology to create better quality content. Some players are actively providing these tools to promote innovation and harness talent. Microsoft, for example, has launched a set of development tools aimed at letting consumers create gaming content for its Xbox 360 console.

The technology-savvy and impatient younger generation is eager to showcase its creativity, stay constantly in touch with the community and control their media experiences. Against the backdrop of these emerging behaviors of the online youth, many wonder whether these trends are a passing fad or are here to stay. We believe that the uptake of many of these services is rooted in inherent consumer needs and as such, they will grow further into the mainstream. Some activities praised by the younger generation are already being adopted by all age groups. For example, close to 50% of MySpace users were over 35 in 2006, up from 40% a year earlier.

Recommendations

The telecom and media space is being reshaped by new consumer behavior, which will challenge the traditional, static, non-interactive and pre-packaged media experience. This presents several issues for players in the TME industry in terms of service offering as well as marketing. For instance, consumers now have an outlet to lend their expertise, opinions, reviews, recommendations and creativity and are playing an increasing role in influencing peers’ consumption. This can have a significant impact on the overall view of the marketers’ product, service and brand. Dell, for example, faced widespread consumer ire when Jeff Jarvis, an online blogger and a journalist, posted a blog on his frustration at dealing with the company’s customer service and support. Telecom and media players, therefore, need to redesign their traditional relationships with the consumer, leveraging consumer involvement and insights at every stage of the product lifecycle and creating new sources of value to gain consumer attention.

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Players can also create value to the user by giving them more control, allowing them to personalize, remix or modify content, thus satisfying their need for creativity and self-expression. The BBC allows consumers to creatively reuse free of rights material from its archive and create mash-ups. This has led to the creation of mash-ups and user-
generated applications such as “Fetch M4,” which extracts traffic information on the M4 motorway in the UK for display on mobile phones.22

III. Weave strong relationships with online opinion makers
Consumers increasingly rely on the peer group and on social information websites to make their purchase decisions. For companies, it is critical to understand how these decisions are made and to try to influence them. Organizations need to identify and listen to emerging group of online experts, who are increasingly holding sway on consumers’ choice. For example, for most social information websites (Digg, Wikipedia), the number of active contributors is actually more limited than one could imagine. In fact, only 3,300 contributors—2% of registered users—provide 70% of Wikipedia articles and a mere 0.2% of Digg registered users have submitted four stories or more.23

The same applies to blogging, where the number of blogging gurus is actually limited and clearly identified. While control over these experts is impossible and any attempt to manipulate opinion is dangerous, it is still important for marketers to engage with these influencers. Marketers should try to build a relationship of trust with these key online figures by providing information transparently and accepting both positive and negative feedback openly. Honda UK, for example, is the first sponsor of 2TalkAbout.com, which lets audiences freely publish their views on well-known brands. Honda engineers and associates regularly log on to contribute to and respond to feedback. This has helped the company to build an active community of customers as well as potential buyers who share experiences.

The growth in time spent on activities like gaming or social networking reveals that consumers have an increasing dependency on these services. In some cases, addiction can be extreme: For instance, users of World of Warcraft, a multiplayer online game, spend an average of 25 hours per week on the game. Social networking is also a very addictive activity: On average, users spend twice as much time on these websites as on traditional websites.24 MySpace is probably the most addictive, as aggregated time spent on this website accounts for close to 12% of the overall time spent on the Internet in the US in 2006 (see Figure 6).25

The addictive nature of these experiences comes from the ability for users to not only interact with their peers, but also compare their status. Designers have ensured that users can showcase their skills and be rewarded accordingly: in “experience points” in the case of World of Warcraft or in the number of friends in MySpace. These “social currencies” are displayed for everyone to see in the user’s profile. This helps to increase the social status of the holder and to reinforce addiction. Ultimately, addiction will

IV. Offer addictive experiences
In today’s choice-filled world, engaging the time-starved and attention-deficient consumer is becoming increasingly difficult. Players need to look at delivering new and innovative services to capture the consumer’s interest. Understanding what creates an addictive experience will be crucial to win the attention of the increasingly elusive consumer.

![Figure 6: Most Popular Websites by Percentage of Total Time Spent Online by Internet Users (% US, December 2006)](source: Capgemini TME Strategy Lab analysis; Compete.com, 2007.)

Addiction patterns are also evident on the mobile. The mobile phone, in fact, is the preferred device of the new generation and is the hub of their social life, using it to permanently keep in touch with their community.

messaging. Extending social networks to mobile devices, for instance, can enable operators to generate new revenue streams since many consumers upload content captured over their cell phones. For example, SK Telecom’s mobile social networking site, Cyworld, had a paid user base of around 0.5 million consumers in 2006 with an average ARPU of €1.5 per month.

In conclusion, the online world is increasingly full of consumer advice, suggestions, complaints and creations. This embodies the fact that people want to be more involved in what they consume and how they consume it. This is exemplified by the 15–24 age group. The increasing roles digital technology is playing in this group’s leisure activity are an indicator of what the medium- and long-term future hold for telecom and media consumers. The changing behavior towards media and communication exhibited by this age group will become mainstream as they mature and their digital habits cross the generation gap. Players willing to listen, learn and incorporate consumer insights will be able to offer innovative services and gain in the long run.

In a UK survey of media preferences in 2006 (see Figure 7), the most missed media activity was television for all age groups except 16–24 year olds, who nominated the mobile phone. However, older age groups are also showing increasing dependency on their mobiles, with 25–34 year olds placing it second. In order to sustain this and drive similar patterns for other older age groups, mobile operators, developers and vendors must work together to embed more features that match the needs of older generations, such as home management, banking, healthcare and not only community, entertainment and communication.

Mobile services can offer solid monetization prospects: consumers show a higher willingness to pay on the mobile platform than on the fixed PC-based Internet. Consider for instance that in a survey conducted by Capgemini across the UK and France in December 2006, 80% of respondents interested in mobile IM were willing to pay an average of around €3/month. Industry players should work towards developing mobile services beyond voice and messaging. Extending social networks to mobile devices, for instance, can enable operators to generate new revenue streams since many consumers upload content captured over their cell phones. For example, SK Telecom’s mobile social networking site, Cyworld, had a paid user base of around 0.5 million consumers in 2006 with an average ARPU of €1.5 per month.

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Jerome Buvat is the Global Head of the TME Strategy Lab. He recently led a variety of studies including an analysis of fixed-mobile convergence services and the development of home gateways. He closely follows the media market as well as the emergence of alternative technologies and business models. Jerome is often called on to speak at industry conferences/events on these and other telecom- and media-related topics. Prior to joining the Lab, Jerome led a variety of strategy projects in the telecom sector, focusing particularly on the mobile, broadband and wholesale segments. He is based in London.

Benjamin Braunschvig is a senior consultant in Capgemini’s Media practice. His current work focuses on monetization of digital content. His recent consulting projects include research on the impact of convergence on the media sector as well as the design and launch of portals and mobile data offerings. He is based in London.

27 Company website.
As the mobile market reaches saturation and voice prices decline across Europe, operators are betting on mobile data to drive revenues. SMS has helped operators to grow their mobile data revenues so far but, along with voice telephony, it also faces slowing growth prospects. SMS revenues, which increased at a CAGR of 5% over 2003–2006 in Western Europe, are faced with an estimated 2% decline over 2007–2010. To combat this, telcos have attempted to diversify beyond basic voice and text messaging with advanced services such as MMS and mobile Internet, but these have failed to ignite significant interest among consumers so far. Only 4% of European mobile users access the mobile Internet once a week or more, while MMS usage remains at less than one message per user per month. Mobile operators, therefore, are on the lookout for new opportunities and compelling applications to drive data revenues.

Instant messaging (IM) is one such application that is expected to gain popularity on the mobile platform, after being a runaway hit on the fixed Internet. On the PC, for instance, the number of global active online IM accounts over Yahoo! and MSN numbered nearly 350 million in 2006, up from 20 million in 2000. Usage of IM has also increased significantly, with the average online user worldwide sending 350 messages per month in 2005 compared with a mere 56 in 2001. IM offers the potential to herald a new age in mobile messaging that is real-time, interoperates with the PC user base and supports multimedia (video, audio, pictures) exchange. However, operators have remained reluctant to promote the service widely. This reluctance is driven largely by the fear that mobile IM, as an alternative text-based communication service, could cannibalize their high-margin SMS revenues.

In this report, Capgemini’s TME Strategy Lab addresses the question of whether mobile IM will enhance or undermine operator messaging revenues. As part of its investigation, Capgemini commissioned a survey across mobile users in France and the UK in December 2006, to gain insights into current mobile IM usage and understand consumer preferences. Based on the survey findings, we analyze consumer expectations for mobile IM and evaluate how well current operator offerings are addressing these needs. We go on to assess mobile IM’s likely impact on revenues, and recommend how operators can launch a successful service while avoiding risks of revenue cannibalization.

1 Yankee Research, “EMEA Mobile Data Applications Forecast,” September 2006. 2 Internetworldstats.com, September 2006; Radicati Group, “Instant Messaging Market to Reach 867 Million Accounts by 2005,” June 2005. 3 Survey conducted by GfK NOP across 300 mobile users in the UK and France. The sample covered 150 current mobile IM users and the rest were consumers, who were aware of the service.
Consumer Expectations from Mobile Instant Messaging

The Capgemini survey identified early signs of consumer interest in using mobile instant messaging. More than 50% of surveyed mobile subscribers aware of the service across the UK and France were interested in using it. However, despite interest, mobile IM uptake is very low, with penetration at around 3% in France, Germany and the UK in 2006. Moreover, even among the mobile IM users surveyed, our findings indicate that usage continues to be low. The service is accessed rarely, with 50% of users logging in less than twice a month, and only 19% using the service on a daily basis. The number of messages exchanged during a session is also rather low: nearly two thirds (64%) of users send less than five messages per session. Further investigation revealed that uptake of mobile IM is being held back by issues in four key areas: awareness, pricing, access to existing fixed IM services and usability.

Awareness

Many surveyed respondents indicated low awareness of mobile IM and its benefits. Among the non-users, 12% of respondents said that they do not use mobile IM because their operator did not offer it. These consumers were unaware that their mobile operators were, in fact, offering the service. Similarly, when consumers were asked why they were not interested in mobile IM, nearly one third said they did not know enough about it or did not foresee any use for the service.

Pricing

Most (80%) of the surveyed respondents interested in using mobile IM were willing to pay for the service. In fact, more than 50% were prepared to spend €2–5 per month, while 21% indicated that they would pay more than €5 a month (see Figure 1). This is good news for operators, given that consumers are accustomed to using the service for free on the PC. However, current prices charged by operators are a key barrier to uptake.

Figure 1: How Much Are You Willing to Spend on Mobile IM per Month? (% of Respondents Interested in Mobile IM, UK and France, December 2006)

Source: Capgemini TME Strategy Lab analysis; survey results of 300 mobile subscribers across the UK and France, December 2006.

is significantly higher too, with 58% of MSN mobile messenger users sending more than five messages per session, compared with 26% for proprietary services (see Figure 2).

**Figure 2: Usage of MSN Messenger on the Mobile Device Compared to Operators’ Proprietary Services, UK and France (% of Mobile IM Users, December 2006)**

<table>
<thead>
<tr>
<th>Number of Sessions Users Are Engaged in</th>
<th>Number of Messages Users Send Per Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;1/day</td>
<td>1–6/week</td>
</tr>
<tr>
<td>29%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: Capgemini TME Strategy Lab analysis; survey results of 300 mobile subscribers across the UK and France, December 2006.

**Access to Existing PC-based IM Networks**

Mobile carriers in Europe have developed their own proprietary mobile IM services that limit users to the operator’s subscriber community. However, the Capgemini survey highlights that the popularity of such services among consumers is low. Most respondents would prefer to use the same IM service as they do on a PC. Access to the existing PC-based IM networks such as MSN and Yahoo! messengers was, in fact, the top reason given for interest in mobile IM, with almost half (49%) of the interested respondents citing it as a factor. Among the mobile IM users surveyed, respondents who had access to their PC-based IM service logged in more frequently, and sent more messages, than those using operators’ proprietary offerings. For example, more than half (57%) of users using MSN messenger on their mobile accessed the service once a week or more, compared with only 32% of those on proprietary platforms. Usage is significantly higher too, with 58% of MSN mobile messenger users sending more than five messages per session, compared with 26% for proprietary services (see Figure 2).

**Usability and Availability of Advanced Features**

Issues relating to the user experience, such as incompatible handsets, complicated interfaces and restricted features, constitute a further barrier to uptake. Nearly one fifth (19%) of consumers interested in mobile IM indicated that they do not use the service because their handset does not support it, while 8% perceived mobile IM as too complicated to use.

Users also expressed the desire to continue to access the same range of features on mobile IM as are currently available on the fixed client, such as integrated access to email, file and photo sharing, and group messaging. For example, 25% of those interested in mobile IM said they want to use it for file or photo sharing. However, this feature is currently unavailable on existing mobile IM services.

Our survey results demonstrate that mobile IM continues to present a healthy opportunity to telcos, being of significant interest to a majority of mobile consumers. However, mobile subscribers have not widely adopted the service so far due to issues around pricing, access to existing PC-based IM networks, low ease of use and poor awareness. Clearly, operators need to address these concerns in order to drive service adoption and usage.

**Evaluation of Operators’ Mobile IM Initiatives**

Operators in Europe have followed a rather cautious approach to mobile IM until recently. They have developed proprietary interfaces that lack interoperability with existing PC-based IM networks and have opted for usage-based pricing. As our survey highlights, this has created key barriers to mobile IM adoption. In the meantime, handset vendors and Internet players are making significant strides in offering instant messaging on the mobile device. Yahoo!, for example, has partnered with Motorola, Nokia and RIM to have its mobile application suite (Yahoo! Go) pre-loaded on their devices. However, recently mobile operators have started to re-think their approaches to IM and are making some headway in providing

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5 “Usage-based tariff plans” refers to charging by time (per minute of use), per message or data traffic exchanged (per KB).

6 “Flat fee” refers to unlimited usage for a flat monthly subscription fee.
Pricing
Prior to 2005, all the major European mobile IM services were charged by usage, and this continues to be the case for several operators. In usage-based tariff plans, consumers are charged per message, per kilobyte of data or per time unit. Users of SFR and Orange Messengers in France, for example, are charged €0.10 per message sent, while Telefónica’s service costs €0.30 for 5 minutes’ access. Usage-based charging models, however, are not particularly appealing to consumers since instant messaging is typically a more conversational application than SMS; for example, in 2005 an average user sent 350 IM messages per month from a PC compared with 95 texts over a mobile phone. Consumers are also likely to find it hard to predict their monthly spend since IM usage is often spontaneous with users indulging in idle chit-chat. Moreover, PC-based IM has set consumer expectation for unlimited usage.

However, the flat-fee model is gaining ground, with several operators adopting this type of pricing in 2005 and 2006. Swisscom, 3 UK and Orange France, for example, have launched flat-fee offers, giving consumers access to unlimited mobile IM.

Our consumer survey also indicated that price is a major deterrent for mobile IM adoption. Only one fifth of potential mobile IM users is willing to spend more than €5 a month. However, most operator offerings, and especially the usage-based models, are likely to result in particularly high bills (see Figure 3). While plain text instant messages create low data traffic, the application and presence updates generate much more traffic, leading to high costs for consumers.

Though flat-fee offerings tend to work out cheaper than usage-based pricing, they are still more than the €5/month consumers are willing to pay. For example, Telenor charges €5.99 a month for unlimited usage of MSN Messenger while Swisscom charges €12 for unlimited IM and email. Orange France, however, has launched an affordable mobile IM subscription package for €4/month for unlimited usage. Orange subscribers can also opt for a daily flat-fee rate of €0.90, more suited to relatively infrequent users. Some players have broken the mold in 2006 by offering mobile IM for no extra charge. For example, Ten Mobile (France) and 3 UK offer MSN Messenger free to certain pay monthly customers.

Access to Existing PC-based IM Networks
Prior to 2005, European operators had mainly developed proprietary, mobile-to-mobile IM solutions. Vodafone UK, and SFR and Orange in France, for example, all launched their own IM services between 2002 and 2004. US operators, on the other hand, launched mobile IM in partnership with Internet players such as Yahoo! and MSN. This helped to drive mobile IM in the US markets with penetration levels reaching 7.5% in 2006, more than double the UK, France and Germany.

A majority of consumers are interested in mobile IM and are willing to pay for it.

Figure 3: Monthly Mobile IM Spend for Select Operator Offerings (Based on 350 Messages or 1.5 MB Data Exchange, January 2007)

Source: Capgemini TME Strategy Lab analysis. Monthly bill calculation for message-based pricing assumes usage of 350 IM messages sent and received per month. For calculation on data traffic (KB)-based pricing, presence and application generated traffic is assumed to be 1.5 MB overall. Monthly costs for Orange offer (under unlimited data traffic) takes into account the monthly bundle costs of €4/month.

Lately there has been a shift in approach among operators in Europe (see Figure 4). The trend towards giving access to existing PC-based IM networks on the mobile device has recently gained significant impetus with two of Europe's largest operators, Vodafone and Orange, switching from their proprietary platforms to a partnership approach with MSN. Orange and Microsoft launched a co-branded fixed and mobile IM service called “Orange Messenger by Windows Live” in December 2006. The service can be accessed by existing Windows Live Messenger users and offers the same functionality as the original Microsoft platform, but with Orange branding and content. Vodafone announced a similar agreement with Microsoft and Yahoo! in February 2007. In the past 2 years, Bouygues (France), Wind (Italy) and 3 UK have also partnered with Microsoft and/or Yahoo! to launch mobile versions of their instant messengers.

**Usability and Availability of Advanced Features**

Operators and handset manufacturers are working on making mobile IM easier to use by ensuring simple installation and login. Nokia, for example, embeds Yahoo! IM clients on some of its handsets, while 3 UK customers can download a Yahoo! or MSN mobile IM client in a small number of clicks. Once the client is installed, users have to enter their login ID and password (which is the same as on the PC) only once and can subsequently launch the service through a single press of a button on the menu. Furthermore, developments are also underway to integrate IM with other core mobile features. Vodafone, for instance, recently announced plans to integrate the presence function into the address book of mobile phones, which will improve user experience. However, advanced features such as group messaging, and picture and file sharing are not widely available on mobile handsets.

With these new developments, we expect that most of the key barriers to adoption will be resolved within the next few years. The issue of access to existing PC-based IM networks is already being addressed by the trend towards partnership with online players. Many operators are adopting flat-rate charging models and prices are likely to come down in the medium term, especially as data tariffs reduce. Operator initiatives have started improving the user experience, making the service more convenient and easy to use. Finally, consumer awareness of mobile IM is likely to increase as operators step up marketing efforts to push mobile data services and online players promote their mobile products more aggressively.

**Mobile IM Forecast and Impact on the Messaging Market**

The stage seems to be set for mobile IM uptake in Europe, now that operators are overcoming barriers such as interoperability with existing PC-based IM networks and pricing. Assuming these developments continue apace, we have evaluated how mobile IM penetration is likely to grow over the next 5 years. What will increasing mobile IM use mean for existing messaging services such as SMS and MMS? Are operators right to fear that mobile IM will substitute SMS and MMS usage and lead to overall cannibalization of messaging revenues? In light of the survey findings, we have analyzed the likely impact on overall messaging market revenues.

**Mobile IM Forecasts**

Our survey indicates that mobile IM is generally of interest to European consumers, with more than 50% of those respondents aware of the service expressing readiness to use it. Moreover, text-based communications is becoming increasingly popular. For example, in France, 50% of a consumer's time spent on communication activities is taken up by SMS, IM and email, up from 8% in 2000. IM is also surpassing email in popularity on the PC, especially with the younger online population: On average, 14–21 year olds in the UK spend almost 50% of their online time using IM. In the medium term, this trend is expected to continue as mobile IM becomes more widely available and accepted.

*Capgemini estimates based on Arcep reports, IDATE, “Telecom 2.0: Emerging Usages and Implications for Carriers,” June 2006; MSN Report, “Europe’s Online Youth,” 2006*
on IM and only 13–15% on email.\textsuperscript{10} Such trends lay the foundation for mobile IM to gain popularity.

Our analysis indicates that, in the UK, uptake of mobile IM will accelerate rapidly over the next 5 years, with penetration growing from 2% of active mobile users in 2007 to more than 30% in 2012 (see Figure 5). By that point, there will be approximately 16 million consumers using mobile IM in the UK.\textsuperscript{11} These growth prospects are based on a scenario that envisages most operators moving into partnerships with Internet players, the availability of affordable flat-fee tariffs, integration of photo and file sharing features, and consumers’ growing awareness and comfort with using IM over the mobile phone. The forecasts also take into account our expectation that Internet access over the mobile phone will become increasingly common, reaching nearly 60% penetration in the UK by 2012. This will be aided by the increasing availability of 3G-enabled handsets and the use of more advanced phones by consumers. These will help to overcome the inconvenience of small screens and keypads as well as enable better application performance due to higher processing power.

Increasing adoption of mobile IM will also be accompanied by higher usage. We expect mobile IM subscribers to use the service extensively, increasing usage from an average of three messages sent per day in 2006, to nearly seventeen messages a day in 2012. The growth in usage is expected to stem from higher adoption of mobile IM creating a network effect, leading to more opportunities to interact with both the mobile and PC communities. PC-based IM usage grew from an average of two messages sent per online user per day in 2001 to nearly twelve messages in 2005 worldwide as the community grew from 45 million to nearly 300 million active accounts.\textsuperscript{12} The potential for mobile IM usage to grow is also reflected in the survey findings where current users report sending up to fifteen messages a day when the service is free of charge.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5.png}
\caption{Mobile IM User Forecast in the UK (Million and % of Active Users)}
\end{figure}

\textsuperscript{10} The Guardian, “Young Blog Their Way to a Publishing Revolution,” 7 October 2005. \textsuperscript{11} We have focused on the UK market for forecasting mobile IM users and usage based on consumer survey findings as well as secondary market research data. \textsuperscript{12} Capgemini TME Strategy Lab estimates; Internet Society 2002; Radicati Group, “Instant Messaging Market to Reach 867 Million Accounts by 2005,” June 2005.
Impact of Mobile IM on the Overall Messaging Market

We expect the SMS usage substitution rate to increase from 3% in 2007 to 25% by 2012 for mobile IM users (see Figure 6). The near-term impact will be insignificant due to low mobile IM penetration, the high price of the service and poor user experience. SMS traffic substitution reported by current mobile IM users in our survey is also low, with nearly 80% expecting no impact. Operators that have launched the service such as 3 UK and Amena in Spain also report that mobile IM uptake has not led to a decline in SMS usage so far. This is possibly because most subscribers currently use the service to communicate with the PC-based IM community while SMS remains popular for mobile-to-mobile texting.

Mobile Internet usage becomes common
Mobile IM base reaches critical mass of 30% of active mobile subscribers, creating a network effect
Low mobile IM adoption
SMS continues to be popular for mobile-mobile texting
Mobile IM adoption gains momentum as most barriers to adoption are resolved
User experience improves with higher penetration of more advanced handsets
SMS Traffic Substitution Expected Due to Mobile IM (% of SMS Messages Substituted, UK)

Figure 6: SMS Traffic Substitution Expected Due to Mobile IM (% of SMS Messages Substituted, UK)

Going forward, SMS substitution will increase as mobile IM adoption and usage gains momentum, creating a network effect. Hence, users will find more and more of their contacts outside the circle of close friends and family who are unlikely to be on a user’s buddy list. SMS will also continue to be the preferred messaging service when users wish to be non-intrusive and not enter into a conversation, unlike IM, which is an inherently conversational application.

We expect mobile IM to replace 50% of MMS and video messaging traffic by 2012, double that of SMS. This is in a scenario where features such as photo and file sharing are widely available over the mobile IM client and handset limitations are overcome due to high penetration of more advanced phones. Moreover, we expect mobile IM to address many of the shortcomings associated with MMS and video messaging, which has inhibited uptake of these services. The average user in Europe, for instance, sends less than one MMS per month. This low adoption is attributed to issues of pricing and user unfamiliarity with using the service. On the other hand, the standardized and familiar interface, suitably adapted to the mobile handset, is expected to attract users to mobile IM. The price differences between flat-fee mobile IM and relatively expensive multimedia messaging services will also have an effect. Therefore, we expect mobile IM to significantly impact MMS and video messaging usage.

However, despite the substitution, mobile IM will grow overall mobile messaging traffic, from 3 billion per month in 2007 to 12 billion in 2012 in the UK (see Figure 8). IM will represent nearly 65% of this traffic in 2012, growing at a CAGR of 100% between 2007 and 2012, compared with a CAGR of 2% and 34% over the same period registered by SMS and MMS respectively.

In terms of revenues, we expect mobile IM to offset the loss incurred from SMS, MMS and video messaging substitution (see Figure 9). SMS and MMS will sustain up to 10% and 30% revenue loss respectively due to mobile IM, amounting to nearly €650m in 2012. IM revenues, on the

13 The forecast model considers overall market factors as well as consumer specified drivers and restraints from the survey. Overall market factors such as handset pricing, 3G penetration, uptake of mobile internet, email, MMS etc., are used to derive a base mobile IM user and usage forecast. Subsequently, based on consumer responses on the importance of factors such as operator pricing, interoperability, user experience and marketing, we arrived at how mobile IM adoption could be further impacted. Both overall market factors and consumer survey findings are, therefore, considered to arrive at the final forecast.
other hand, are expected to reach nearly €800m in 2012, leading to a net revenue gain of €150m for mobile operators.

In conclusion, we expect mobile IM uptake to increase rapidly in the next 5 years, with particularly strong growth from 2010, assuming that most barriers to adoption are addressed in the wake of operator initiatives and technological advances. Although mobile IM will substitute other forms of mobile messaging to some degree, the net effect on operator revenues is expected to be positive.

Recommendations for Mobile Operators
Mobile operators have so far struggled to make money out of services other than voice and SMS. The mobile Internet experience has so far been below par due to low speeds as well as the limited range of services available on operators’ “walled-garden” portals. However, with high-speed access a closer reality now than before and operators opening up Internet access on the handset, the stage is set for the mobile device to emerge as a hub of communication and entertainment. Operators

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14 Consumer survey findings and current tariff plans indicate an average cost of €0.04/message. This price per message has been multiplied by the traffic forecast to calculate mobile IM revenues in 2007. To calculate mobile IM revenues from 2009 onwards, we have assumed that most operators will offer flat fee tariffs, at around €4/month, in line with consumer expectations.
currently have an opportunity to participate extensively in how the mobile Internet landscape shapes up. However, they may also risk failing to capitalize on this opportunity, losing out to online players, who are trying to replicate the edge they have on the PC.

The same holds true for mobile IM, where operators are likely to lose out to online players if they restrict interoperability with the existing fixed IM community and price it too high. The good news is that some operators are making the right moves in partnering with online players, launching flat-fee pricing and investing in development of a better user experience, as well as educating the customer on advantages and use of the service. However, this approach does come with certain risks of brand dilution and existing messaging revenue cannibalization. But operators can mitigate these risks to some extent if they jointly develop the service with online partners and consider pricing options that will drive overall ARPU uplift.

I. Joint Development of Mobile IM with Online Partners

The partnership approach is not without risks. Operators may have concerns about their brand being overshadowed if their mobile IM service is provided by strong Internet players. There is also the potential for operators to miss out on additional revenue streams if the online player markets other content and services directly to the mobile users.

In order to mitigate these risks and retain control, operators should follow a joint development approach. Consider Orange's partnership with Microsoft: Orange co-brands the service, ensuring the IM application retains the company's trademark look and feel. Orange also provides content and additional services such as ringtones and logos, which can be accessed over the IM client on the desktop. It also capitalizes on IM's ability to attract user traffic to drive advertising opportunities by managing banners and pop-ups on the desktop client.

Mobile operators can also drive development to enable a better user experience and bring in value to the partnership. Operators can work with platform providers such as Fastmobile, which provides customers with a simplified way of accessing and using messaging services across SMS, MMS, email and IM. Fastmobile’s solution also integrates features such as mailboxes and address books across all messaging services, enabling a single interface to access various applications.

II. Pricing Options

Higher than expected substitution of other messaging services could lead to a net revenue loss for operators. If an overall 50% substitution occurs across SMS, MMS and video messaging usage, operators could face a net £50 million loss in messaging revenues. While we do not believe this scenario is very likely, we propose some options for operators to mitigate such a risk. For example, mobile providers can consider offering different mobile IM versions at different prices. A basic, text-only version can be offered with an option to upgrade to include file sharing. For instance, charging €4 for the basic version and an additional €1 for file-sharing features would help operators to stay revenue positive in this scenario. Furthermore, since photo and file sharing consume higher bandwidth, operators can justify the premium for these features. Moreover, MMS and video messaging are currently highly priced on a per event basis, resulting in low service uptake and limited revenues. In contrast, an affordable flat-fee mobile IM offer may appeal to consumers, driving higher penetration and, hence, higher revenues.

We suggest that operators also consider pricing options such as bundling other Internet applications with IM. For example, making Web browsing, email and IM access available at affordable monthly flat fees will help to create significant customer value, appealing to a large base of current subscribers and increase overall mobile Internet penetration. NTT DoCoMo and KDDI in Japan, for example, have successfully implemented such a strategy with unlimited browsing and email available to users at a flat monthly subscription charge (nearly 50% lower than the unlimited browsing plans available in Europe). The low-cost, flat-rate tariff plans have helped the Japanese operators to drive email usage amongst its subscriber base to more than 80% penetration. KDDI, in fact, saw its data ARPU more than double after introduction of the low-cost flat-free tariffs. 3 UK has recently launched a price plan along the same lines, allowing users to access unlimited Internet and mobile IM for £5 on top of standard voice and SMS tariff plans.

Operators can also look at options for bundling IM with social networking services, which are gaining popularity on the mobile Internet. For example, users could be allowed to exchange as well as upload pictures and videos to
their online profiles through the IM interface. With mobile social networking already showing early signs of success, such a bundle could create significant value to the consumer and help drive uptake as well as revenues.

In conclusion, while mobile IM has struggled to take off so far, it has the potential to become a successful service for operators if it is positioned correctly. Although mobile IM will have some erosive effect on other types of messaging, careful pricing strategies can deliver greater overall messaging revenues. By partnering with existing fixed IM providers to develop co-branded fixed/mobile applications, operators can also retain control over additional revenue streams while meeting growing consumer demand for access to Internet-based services.

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WE DO NOT EXPECT IM to cannibalize SMS substantially as they serve different needs.
Developing a Successful Digital Media Strategy
by Jason Forbes, James Rooke and Della Huff

Abstract: After many false starts, digital entertainment may be coming of age but key challenges still remain. Emerging case studies suggest that the winners and losers will be determined by how well they simultaneously address three critical factors: richness of Content, breadth and depth of Capability, and understanding of the Consumer. Ultimately, the ability to enable the end consumer goal of “any content, through, any channel, on any device, at any time” will be measured by how successfully the “3 C’s” are understood and integrated. This article discusses lessons to date from the digital distribution market and presents highlights of Capgemini’s survey of consumers’ digital media preferences. The responses demonstrate that consumers’ appetite for digital media is strong. The winners will be those with the right set of capabilities to bridge the gap between consumer expectation and current reality.

Though digital distribution has gained a foothold in the entertainment industry, the market remains at the early stages of a shift from physical to digital product consumption. Digital sales still only represent around 10% of total sales in music and less than 2% in video. Digital sales growth forecasts have also recently been revised down (see Figure 1). Responsibility for the low digital take up has generally been placed on the content providers, reluctant to release content for digital distribution. Their reasons include the fear that this would cannibalize their highly profitable physical businesses, the importance of protecting their lucrative bricks-and-mortar–retailer relationships and concern over digital piracy.

However, given the lessons learned from the music industry and having recently successfully tested a number of different distribution models, digital video distribution is increasingly being considered a complimentary, not cannibalistic channel. In a January 2007 interview, Bob Iger, CEO of Disney, noted that “Pirates of the Caribbean and Cars were two of the most downloaded films on iTunes when we launched movies there in October, yet those two movies did extremely well in their sell-through DVD business.”

Similarly, some TV networks have seen an increase in audience figures for shows that are made available digitally, demonstrating the power of a multi-channel strategy; for instance, the US version of The Office significantly increased its TV ratings after episodes were made available on iTunes. YouTube’s recent deals with NBC and the BBC, Joost and News Corp attest to the growing acceptance that content providers must embrace consumer demand for digital products and so monetize digital content through emerging legal channels.

These realizations and the increasing focus on digital distribution as a core component of overall strategy has resulted in a flurry of M&A activity in the digital sector with online media deals worth more than $8.9bn in the US. Underpinning this surge is not only a belief in latent consumer demand, but the recognition that financial markets are rewarding astute digital acquisitions and growth, even if monetization and financial returns remain nascent in acquisition cases like News Corp’s of MySpace.

In the meantime, the digital entertainment space is becoming more crowded with traditional and emerging competitors as content providers, distributors, retailers, technology players and consumer electronics companies place their strategic bets. But many questions remain as to how compelling a given proposition really is. In this article, Capgemini’s Media & Entertainment practice assesses the key factors that underpin a best-in-class proposition and recommends some key steps to implementing a successful digital strategy.

What Are the Key Success Factors for Digital Distribution?
Despite the recent growth, uptake of digital distribution remains limited in the mainstream with significant barriers to widespread adoption.

Capgemini’s 3 Cs framework—“Content, Capability and Consumer” (see Figure 2)—provides a means for identifying some of the key reasons behind the current market restraint and the factors that media companies must address. In nearly every case, one “C” alone will not be enough to be successful, emphasizing the need to do all three things comprehensively as opposed to just one thing quickly.

Content: be it music, publishing, video or games, is the foundation of the entertainment value chain. An effective digital content offering must typically address three key parameters.

First, catalogs must be extensive enough to dissuade consumers from searching for more comprehensive alternatives (including illegal ones). A key challenge here remains intellectual property management, with each content provider typically facing huge complexities (e.g. music clearances, talent clearances, rights for new digital media) and so limiting the ability to provision legal content.

Second, the timing of content availability must be considered: Can content be accessed more quickly through another source or channel? If it can, consumers may again sidestep legal channels in favor of illegal ones.

Finally, content pricing: How much does each title cost and how does this compare to alternatives, especially physical products like CDs and DVDs? Prices must address consumer perception of the value of digital media compared to physical products. At the moment, many consumers think prices are too high relative to the value of the product, limiting take up. Consumers may be reluctant to pay the same or more than the cost of a DVD for a digital version that lacks special features and cannot be shared seamlessly across devices. Frustrated by the high prices and limited content available from legal sources, some consumers are turning to peer-to-peer (P2P) sites for video content: About 6 million Internet-enabled US households downloaded video files from a P2P service for free in Q3.

Figure 1: US Market Video Sell-Through Forecasts ($m, 2006–2009)

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its innovation in P2P distribution, as examples where gaps have been addressed. More broadly, falling device prices and bandwidth costs, device interoperability improvements, increased penetration of time-shifting devices like DVRs and place-shifting devices like Slingbox and Apple TV are all indications of further movement in the right direction.

Despite this progress, capabilities are still far short of what is needed to enable the types of compelling consumer experiences that will attract the mass market to digital consumption.

Consumer demand and technological innovation have been the main drivers of the entertainment market’s recent evolution from a one-way, passive experience to a two-way, dynamic, participative relationship. The technologically empowered consumer is now increasingly creating and interacting with content through a number of channels that provide an alternative to traditional products, competing for available entertainment time.

This change in interaction has been profound, with many Internet users now spending as much time online as watching television. Clearly something had to give and indeed Internet users spending more than 10 hours per week reported a 65% decline in television consumption. This loss of “control” for traditional linear programming has been met with different approaches by old and new media players, all with different perspectives on consumer needs and how best to address them.

Although a full understanding of consumers’ needs and behaviors might seem like a critical area of focus, this is often not the case. The failure of many in the digital and broader entertainment space has often been caused by an inability to understand and address consumer needs on a satisfactory and timely basis. For example, as recently as 2005, legal movie downloads through Movielink cost as much as $29.99 with no major Hollywood titles available.

In order to better understand consumers’ evolving needs in digital entertainment, Capgemini recently conducted studies across the US and Europe to determine consumer interest in a range of content types, be it music, gaming or video.
The survey results suggest a large gap between stated consumer demand and current forecasted levels of digital consumption. For example, 71% of people in a $14bn US video DVD market expressed an interest in downloading recent movies (see Figure 3). But with the current limited choice and poor user experience, TDG predicts only $91m will be spent on legal movie downloads in the US for 2007. Indeed, content types with some of the highest levels of interest like “Recent Movies” have until recently been one of the most poorly served. Even now, iTunes’ selection is still limited to a small subset of studios. Consumers’ stated demand (what they say they will do) and actual demand (what they actually consume), however, can be very different. Capgemini ran a conjoint analysis to determine preferences across different types of products. The results helped determine what level of substitution might occur in the video space, as well as the potential marketshare shift from the current video market if other types of digital and hybrid product bundles were made available today. As can be seen in Figure 4, were Video on Demand (VoD) and sell-through movie downloads bundled with DVDs, there would be a substantial shift away from conventional DVD sales. For content providers, broadband players and retailers, the implication is clear: Offer consumers the bundles they desire and you will take share from your competitors; fail to do so and share will be taken from you.

Critically, respondents indicated that capability-driven issues limited their interest in purchasing digital content. For respondents that did not download movies, “preferring to own a physical DVD,” “not wanting to watch on a PC” and “download times” were the top three reasons in all four countries surveyed. Worse still for existing players, complacency may no longer be enough as a spate of new competitors such as Joost and Brightcove seek to address these gaps in consumer demand. Across countries, consumers in our survey expressed a significant appetite for switching providers if alternatives could better meet demand (see Figure

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14 Video on Demand (VoD) is a pay-per-view, free, or subscription-based rental television service in which a viewer can order a movie from a menu on the TV using their remote control. It is delivered instantly to the television set for either instant viewing or viewing within a set time period (usually 24 hours), typically with the ability to pause, rewind, etc. The viewer does not own the movie.
15 A movie download is an electronic sell through (EST) copy of a movie, TV show, music video, etc. that can be downloaded from the Internet and played on various devices such as a PC, laptop, video iPod or PlayStation Portable.
16 Capgemini Conjoint Survey, August 2006.
5). Yet building a set of capabilities to lock on to these new types of consumer demand has proven far from easy for many players.

**Capability Deployment: How to Execute a Digital Strategy**

Pioneers in the digital space have begun to grasp the sheer complexity of defining and enabling the suite of capabilities required to construct a compelling digital entertainment offering. Once a value proposition has been agreed, three steps are typically needed for launching a digital entertainment service: 1) Define the capabilities required; 2) Decide whether to build, partner or outsource; and 3) Develop a capability and ownership roadmap.

**Step 1: Define the Capability Suite**

This first step requires a clear understanding of the core business flows from content acquisition to final consumer support. In most cases, though capability levels will vary, the capabilities themselves remain largely consistent, as illustrated in Figure 6.

Each of the capability blocks will require a number of integrated elements, including processes and policies to inform how the capability will be executed; technology in the form of infrastructure and applications; and people in the form of organization and skills. It is critical to determine the optimal mix across these three dimensions. For example, business processes will be informed by the desired levels of automation versus human interaction.

Capability definition can be a complex process, but partnering with existing expertise should make the process smoother.

**Step 2: Decide to Build, Partner or Outsource**

Having defined the capabilities required, players must determine whether to build, partner or outsource with existing or new partners. Prioritizing each capability against its strategic importance and the likely value:cost ratio can help inform potential ownership options for players (See Figure 7). Generally, strategic importance will often be company-specific, shaped by how integral a given capability is seen over time. For example, though Virgin Media in the UK may see full ownership of the TV platform as being a core part of its proposition, for retailers like Carrefour in France or Target in the US, this capability may be seen as secondary in their overall strategy.

Borders Books' (an American bookseller) use of Amazon.com in the US and FNAC's (a French retailer) use of Glowria's on-demand entertainment platform in France are examples of players who have chosen an entire capability platform provided by a partner instead of building it. Indeed, Wal-Mart's recent announcement of a video store enabled by Hewlett-Packard reflects that, even for the larger players, the advantages of partnering can be substantial in minimizing costs while providing options for greater ownership in the future.

**Step 3: Develop the Capability & Ownership Roadmap**

Defining what capabilities and functionality will be enabled, by when, and by whom will inform the business case for launch. However, the build, buy or ally decision is not a static one and will likely evolve over...
Figure 5: Consumers’ Willingness to Switch Provider

If a local cable, satellite or telecom provider began offering the following bundles, how likely would you be to switch providers in order to take advantage of a VoD/PPV + DVD offering?

<table>
<thead>
<tr>
<th></th>
<th>Probably Switch</th>
<th>Definitely Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>61%</td>
<td>56%</td>
</tr>
<tr>
<td>UK</td>
<td>48%</td>
<td>42%</td>
</tr>
<tr>
<td>France</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td>Germany</td>
<td>13%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Source: Capgemini Conjoint Survey, August 2006.

Figure 6: Capability Suite Overview

Source: Capgemini analysis.

Recommendations for Industry Players

With all this in mind, several recommendations can be made for the different types of player:

Content providers should concentrate on monetizing content across a wider number of channels. Earlier fears of cross-channel cannibalization are proving to be largely overstated, and in many cases digital distribution is increasingly viewed as a complimentary channel. Making content available across multiple channels better addresses consumers’ demand for “any content, through any channel, at any time,” while diversifying revenue streams and reducing dependency on any one specific channel. Continuing to shrink release windows may be another key part of this strategy; despite concerns about revenue losses, the opposite may in fact be true. An academic study in March 2007 by researchers from the Cass Business School in London found that simultaneous theatrical, DVD, and VoD releases could increase US studio revenues by 16%.

Cable and telecom providers should leverage the strength of the living room relationship in order to drive new revenue streams. First, propositions should be developed that leverage incumbent advantages including existing consumer billing relationships and control of the at-home TV viewing experience. Second, the existing Video on Demand service through the set top box should be used to offer innovative product bundles. For example, consumers...
could purchase a VoD title and have the option to purchase a digital copy or DVD of the same title for a bundled price. Third, the quadruple play of cable, Internet, voice and mobile phone should be exploited to offer cross-platform digital offerings such as a TV download with a mobile streaming option. This strategy will prove important to drive uptake as cable and telecom companies move towards a more integrated browse, purchase, and viewing experience. This will take time due to the technical limitations of deployed set top boxes and cable head ends, so driving products and services that leverage new hardware and software deployments will become increasingly important. Cross-platform offerings that offer consumers attractive pricing bundles, integrated billing, and connection to the TV may position cable and telecom players as viable if not preferred alternatives to retailers for entertainment.

Retailers should employ digital distribution offerings as part of a broader multi-product, multi-channel strategy. With nearly 90% of music, video and gaming content still being purchased in stores, retailers should direct or “self-cannibalize” the market toward higher margin digital products.

Merchandizing higher margin mid-tier content or indeed offering ways to mash up user-generated content will offer additional products to further improve economics. Critically, retailers can cross-promote physical and electronic products (e.g. “Buy the PC game and get a free level online” or “Buy the DVD, and for $3 get a digital copy online”) to educate and migrate their customers online. The opposite is also true. Retailers can use their online or impending Interactive TV channels to drive traffic back to the stores with effective discounts, given the preference in many consumer segments for an in store experience.

The current advantage retailers have in subsidizing DVD and CD prices to drive traffic and sales in other segments may continue in the digital space. If retailers can hook consumers to the site via low prices for movies, games or music tracks, they can use an integrated shopping cart to encourage purchases of other, higher margin products. It is unlikely that content and broadband providers will enjoy the benefits of this business model in the short term since they lack retailer product breadth. As a representative for Wal-Mart said, “Today, downloads is the focus of the site but this is all about... evolving

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this business into a multi-channel, multi-format offering for our customers.”

Conclusion
Beyond the hype, the much talked of inflection point for digital will only be reached if the current challenges can be addressed. Fully addressing the limitations surrounding the content, capability and consumer dimensions will enable new physical and digital bundles—something that our research shows consumers want. Though these preferences will evolve, the existing gaps reflect the immaturity of digital distribution and consumers’ associated concerns with content availability, poor user experience, technology capability issues and pricing levels. But bridge the gaps and players across the entertainment landscape have an opportunity to tap into this demand. How these are embraced will invariably be determined by which industry segment (content provision, distribution, retailer or technology) a firm is primarily from and the associated advantages or disadvantages this entails.

Meeting this demand, however, requires enabling an intricate set of capabilities. For those entering the space, the level of complexity and associated costs are likely to prove challenging. By leveraging partners, however, the definition and construction of the right capability suite can be greatly enhanced, but ownership and control should be carefully considered and allowed to evolve over time. For every player, the definition and delivery of a unique value proposition that addresses content, capability and consumer needs the most comprehensively—as opposed to one capability the most quickly—will be the key for driving future success.

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Della Huff is a consultant in Capgemini’s Media & Entertainment practice. She specializes in consumer research in digital media and home entertainment. She is based in Los Angeles.

Fears of **CROSS-CHANNEL CANNIBALIZATION** are largely overstated.

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In today's mature telco markets, maintaining profitability and customer bases is an increasingly challenging task. Traditionally, telco operators mainly focused their efforts on optimizing marketing strategies and sales operations. However, these levers on their own are no longer enough to meet operators' ambitious targets. In their quest for improved performances, telcos must now focus their efforts on what has traditionally been an equipment vendor issue: Supply Chain Management (SCM)\(^1\).

Given the scope of the processes involved, supply chain management is increasingly driving competitive advantage and profitability. Until now, operators have not recognized the significance of effective SCM, yet if managed correctly it can be the key to sustaining customer acquisition and retention. Handsets are a key criterion in choosing a mobile carrier and generally play a major role in operators' marketing campaigns. So clearly, ensuring that the right devices are available at the right retail outlet, at the right time and in the right quantity is of paramount importance. Any product shortage could lead to lower traffic revenues and potential churn. In our experience, a stock shortage of just 5% can cost a large operator as much as €100m in lost revenue. Similarly, unsatisfactory after-sales performances with long repair times or inefficient provisioning processes may reduce traffic revenues and lead to higher churn rates.

Effective SCM is also critical to building and cementing operators' distribution networks. Being able to provide a superior logistics service to dealers— for instance, enabling them to minimize upfront orders, reduce stocks at points of sale and streamline internal processes— is a key service component and therefore a driver of dealer satisfaction and channel loyalty.

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\(^{1}\) We define Supply Chain Management as optimizing the end-to-end physical flow of devices/handsets, ensuring the efficient provisioning of both distribution channels and individuals, and managing reverse logistics and technical assistance.
In Capgemini’s experience it is not uncommon to identify potential EBITDA benefits of as much as €10m–15m per year. However, optimizing telco operators’ SCM is a complex task: Challenges such as the sheer volumes involved and the difficulty of forecasting stock demands accurately require careful consideration. Yet the magnitude of the potential benefits means that, despite the complexity, optimizing SCM should be a major priority for telcos.

In this article we analyze the key challenges relating to supply chain management, explore improvement levers and recommend the best options for telcos.

**Key Challenges for Telecom Supply Chain Management**

Optimizing SCM in the telecom environment comes with some significant challenges. First, the volumes involved are huge. Large European mobile operators purchase and distribute 3–5 million devices a year, providing after-sales support to 1–3% of the total client base— usually in the tens of million users.

Broadband operators also distribute several million Customer Premises Equipment units per year, especially in the customer acquisition phase. After-sales assistance for the latter is even more demanding because operators are usually the only identifiable point of contact to customers, whereas mobile operators can rely on manufacturers’ assistance networks.

On top of the large volumes, several external and internal drivers contribute to shape a challenging SCM framework, specific to operators (see Figure 1).

**Manufacturers’ Constraints**

On the supply side, operators have to contend with device manufacturers’ tight production schedules, usually based on a “production-to-order” approach and characterized by little flexibility and long lead times. Also for newer models production capacity is limited. Therefore, manufacturers usually require orders to be placed in advance with confirmation at the latest 8–12 weeks from expected delivery— well ahead of realistic demand forecasting capabilities. In addition, uneven service, as well as delayed and fragmented shipping, are fairly common, adding complexity to inventory management.

**Customer Management**

On the customer side, operators’ major challenges are avoiding under-servicing high-value clients and over-servicing low-value clients. Telco operators’ client base is made up of a variety of different segments, each one with specific usage patterns and service expectations that impact SCM requirements, especially on the after-sales side. For example, advanced users may expect to be able to install and reconfigure their home gateways with limited assistance, while less sophisticated clients may require a home installation. Similarly, unsophisticated customer segments may consider a 10-day repair time for their mobile phone a reasonable delay, while a business user may find it totally unacceptable. On the other side, each customer has a different value to the operator, determined by their expected revenue/margin stream, regardless of their actual service expectation. Identifying the ideal service-level versus cost-to-serve trade off for each customer segment is a major driver of both customer satisfaction and operators’ profitability.

**Business Dynamics**

The rapid pace of product innovation and the devices’ increasing technical complexity put heavy pressure on supply chain management. One of the main challenges of telco SCM relates to the limited accuracy of demand forecasts. The device lifecycle is getting shorter, especially for mobile handsets, whose average life is no longer than 15–18 months, and sales trends are heavily impacted by a continuous cycle of promotions. Forecasting demand in this environment is becoming more and more complicated: in our experience, best practices reach a forecasting accuracy no higher than 70%. The high demand variance could be compensated by a higher level of inventory, but tight budget objectives mean scope is limited. Therefore, logistics managers have a hard time balancing the risk of shortage with the risk of over stock.

The rapid product and technology innovations also have an impact on after-sales. New devices are generally based on less stable technologies and require a higher level of assistance. In the first year of introduction, 3G handsets experienced a return rate of

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**Figure 1: Key Drivers of Supply Chain Management Complexity**

<table>
<thead>
<tr>
<th>External drivers</th>
<th>Internal drivers</th>
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<tbody>
<tr>
<td><strong>Manufacturers’ Constraints</strong></td>
<td><strong>Operators’ Positioning</strong></td>
</tr>
<tr>
<td>Tight manufacturers’ production scheduling;</td>
<td>Wide range of:</td>
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<tr>
<td>Longer lead time</td>
<td>Devices</td>
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<tr>
<td>Need for accurate planning</td>
<td>Distribution channels</td>
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<tr>
<td>Limited flexibility to modify orders</td>
<td>Commercial policies and habits</td>
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<tr>
<td>Uneven service level</td>
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<td>Low delivery accuracy</td>
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<td>Potential shipment of faulty devices</td>
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<tr>
<td>Many customer segments with different usage patterns</td>
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<tr>
<td>Uneven customer value for operators</td>
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<tr>
<td>Service is becoming one of the main competitive drivers</td>
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<tr>
<td>Increased pace of product launch;</td>
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<tr>
<td>Shorter lifecycle</td>
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<tr>
<td>Promotions</td>
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<tr>
<td>Higher after-sales return rate due to device complexity</td>
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<tr>
<td>Increased pressure on margins</td>
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</tbody>
</table>

**Supply Chain Management Characteristics**

- Suppliers Difficult to Control
- Range of Customer Segments
- Range of Services
- Cost Pressure
- Dynamic Market
- Wide range of devices/channels
- Complexity of End-to-End SCM

Source: Capgemini analysis.
five to seven times higher than consolidated 2G handsets, with up to 15% of mobile handsets returned by consumers. Plus of course, the newer the technology, the less familiar the consumer will be with how to use it.

**Operators’ Positioning**
Operators’ service and commercial policies place additional burden on SCM. Most operators serve the market through a variety of different sales channels, each one with specific requirements, procedures and service levels. This often leads to fragmented logistics and after-sales operations, making it difficult to achieve economies of scale and increasing operational complexity. Similarly, marketing departments tend to offer the widest possible range of devices, regardless of actual rotation indices, which leads to an excessive number of Stock Keeping Units (SKUs) to be managed. This negatively impacts stock levels, complicates logistics processes and increases the likelihood of shortages.

**Internal Processes and Organization**
Poor coordination between the marketing, purchasing and logistics departments is a common factor in under-performing SCM. Logistics managers are not in control of the main levers that impact their performances: demand and supply. Demand forecasts are usually performed by marketing functions, which also decide price lists, promotions and communication campaigns. Supplier management is generally a responsibility of purchasing functions. Unsurprisingly, inadequate coordination between these three functions will usually lead to poorer service and higher costs. In many cases, operators lack shared objectives or metrics that would drive a more collaborative approach to SCM.

**What Does a Successful Telco SCM Model Look Like?**
Each operator has specific challenges to face in order to design an optimized Supply Chain Management model, depending on the competitive environment, market conditions and legacy blueprint, operations and policies. However it is possible to identify a set of guidelines that our experience are applicable to most telco operators (see Figure 2).

**Supplier Relationship Management**
Suppliers’ rigidity is largely unavoidable. Changing major orders close to the shipment date will only lead to “best effort” deliveries, with a high probability of delays or partial shipments. Successful operators work with vendors to optimize their operations by sharing their forecasts and implementing collaborative planning models. Collaborating in this way should enable some degree of order flexibility. At the same time, it is best practice to strictly monitor suppliers’ performances in order to enforce delivery reliability, applying penalties when appropriate. An effective supplier relationship model implies that supplier contracts should not only be negotiated on price conditions but should also include precise service level agreements (SLAs).

Such agreements between operators and manufacturers are not uncommon. For instance, a major Dutch operator systematically negotiates detailed supply contracts with its vendors. Contracts specify a demand forecast calendar, a delivery-reliability SLA—including a penalty for each day of delay—and a handset-quality SLA.

**Cost-Conscious Service Orientation**
Successful operators are able to “rightsize” the service level they provide to their customer base by shaping it to the various client segments’ actual requirements and value. The first implication of this approach is the need to define, discuss and implement a segmented service policy; most operators either follow an undifferentiated approach—same service to every customer—or differentiate customers based on the devices they purchase, regardless of the true customer value.

The next step is to define the right level of investment per segment based on the cost to serve. Figure 3 shows a conceptual example of this approach, applied to after-sales. Some devices have such a low unit value that the best solution is to substitute them instead of bearing the logistics and technical cost of a repair (A). This is true for entry-level DSL modems, which cost no more than €10–15.

When the customer value is low/average (as with most consumer clients) and the device value is higher

<table>
<thead>
<tr>
<th>Figure 2: Supply Chain Management Model Guidelines</th>
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<tbody>
<tr>
<td><strong>External factors</strong></td>
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<tr>
<td><strong>Manufacturer’s Constraints</strong></td>
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<tr>
<td><strong>Customer Management</strong></td>
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<td><strong>Business Dynamics</strong></td>
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<tr>
<td><strong>Range of Customer Segments</strong></td>
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<td><strong>Cost Pressure</strong></td>
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<tr>
<td><strong>Dynamic Market</strong></td>
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<tr>
<td><strong>Range of Devices/Channels</strong></td>
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<tr>
<td><strong>Cost-Conscious Service Orientation</strong></td>
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<tr>
<td><strong>Cost-Conscious Service Orientation</strong></td>
</tr>
<tr>
<td><strong>Differentiate service based on</strong></td>
</tr>
<tr>
<td><strong>Cost-Conscious Service Orientation</strong></td>
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<tr>
<td><strong>Operational Excellence</strong></td>
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<tr>
<td><strong>Limit the number of operational models</strong></td>
</tr>
<tr>
<td><strong>Operational Excellence</strong></td>
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<tr>
<td><strong>Flexible and Reactive SCM</strong></td>
</tr>
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<td><strong>Flexible and Reactive SCM</strong></td>
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</table>

Source: Capgemini analysis.
than repair costs, the “basic” repair process can apply, with a repair time of 1–2 weeks (D). For higher value clients, such as business users, the standard repair time may not be acceptable because of service level expectations and potential traffic losses. In this case most operators “swap” the device, i.e. substitute the damaged device with a new/refurbished one, cutting repair times to 1–3 days (B). However, for very expensive devices the carrying cost of a dedicated stock swap may be too high, in which case operators can negotiate accelerated lanes with their repair hubs to shorten repair time and provide a similar service (C).

A UK mobile operator recently achieved a £1.1m saving per year by optimizing its exchange-repair ratio, limiting swaps to high value customers.

**Operational Excellence**

Operational excellence can be achieved by several means, depending on operators' specific SCM models and operational requirements. However, some improvements can usually bring benefits in the majority of cases:

- **Improve data on actual product availability:** The Supply Chain function often has very little understanding of true customer demand, as there is usually little or no data captured on lost acquisition opportunities across any of the channels. An effective SCM information system tracks those instances when a customer requests an out-of-stock device and measures the SCM's ability to place devices accurately across the channels, not just its ability to get devices into the supply chain. Measuring stock correctly at the retailer level (whenever retailers are not owned by the operator) is also a key requirement to properly manage inventories.

- **Tailor inventory size to single device’s lifecycle:** Operators tend not to pay enough attention to product lifecycles. In general, inventory levels are decided based on the number of weeks of future demand that need to be covered to reasonably ensure the device’s availability (“coverage rate”), compensating demand-expected variance. However, devices in their launch phase will have a very unpredictable demand, and it will be critical to avoid shortages. On the other hand, devices reaching maturity or close to being phased out are easier to forecast and less critical from a business point of view. Therefore, the coverage rate could be differentiated based on the devices lifecycle, providing extra flexibility with no additional investment in inventory.

- **Optimize product portfolio:** Product portfolio strategy is the responsibility of Marketing, but usually the Marketing department does not bear the stockkeeping costs related to its decisions. Thus, it does not have a strong incentive to limit product portfolio complexity. However, reducing the number of SKUs by eliminating low rotation items from the price list dramatically improves logistics performance and reduces the risk of shortages.

- **Avoid inventory fragmentation:** Inefficient logistics models disperse inventory across many locations (e.g. central warehouse, regional warehouse, retailers), leading to unnecessarily high stock levels and the risk of shortage even when the requested device is actually available (but in the wrong place). Unwanted stocks can also arise in centralized warehouses when devices are virtually allocated—to a sales region for instance—and cannot be unfrozen to meet unsatisfied demand in other areas. In general, the most efficient
Inventory models are based on centralized physical warehouses with systematic rebalancing of device allocation. Similarly, delaying “kitting” and configuration of devices until the very last minute can help maximize availability and remove unnecessary rigidities.

- **Define and enforce a returns policy:** Uncontrolled commercial returns—and a lack of clear internal policies—can lead to unmanageable inventories of outdated devices as well as unnecessary effort to track the origin of returns, identify the “internal owner” and make a decision on disposal or reconditioning. Similarly, operators have a short time window to return devices to manufacturers that have not worked since arriving at the retailer—generally termed Dead On Arrival (DOA). Thus, operators have to define and enforce strict rules to ensure that retailers report DOAs to manufacturers in good time. Best-practice operators define and circulate detailed policies both internally and to distribution channels that regulate DOA and commercial returns, and systematically apply penalties in cases of non-compliance. Retailers are also required to ask for specific authorization before returning devices and to fill in specific forms (either on paper or on an extranet) to ease returns identification and processing.

- **Leverage collection points to improve after-sales:** In high-performing after-sales models, collection points are required to screen consumer requests, verifying that devices are actually entitled to receive assistance, and perform an initial diagnosis before shipping them to the repair hub. Information concerning returns is collected and processed in order to identify the main causes of the fault and quickly define appropriate actions. For instance, specific instructions can be provided to collection points to ease identification and solve known faults. The same information can effectively be shared with manufacturers and repair hubs in order to accelerate device debugging and improve repair processes.

The size of the operational excellence benefits depends on the specific issues addressed but, as an example, the recent reengineering of a European incumbent’s SCM generated €4.5m in opex savings, mainly related to warehouse management optimization.

**Flexibility and Reactivity of SCM Model**

Telco operators’ SCM models have to be flexible enough to serve a very large client base with multiple retail channels. Flagship stores have very different logistics requirements compared to wholesalers; hypermarkets only accept scheduled deliveries, thus requiring different delivery means than express couriers (which are generally used to serve all the other channels); ensuring after-sales assistance in sparsely populated rural areas is completely different compared to major towns.

In our experience, many operators end up with a large number of different SCM models built over time. However, it is usually possible to define a generic model that can provide enough flexibility to serve the majority of operators’ logistics requirements. Considering the real cost/benefit ratio of tailoring specific solutions to single requirements instead of leveraging existing SCM model is a good practice that should be systematically applied to SCM decision making.

Recently, a Southern European incumbent totally redesigned its SCM model to integrate its fixed, mobile and cable operations into a single logistic architecture. This enabled it to generate economies of scale and eliminate sub-optimal legacy approaches.

**End-to-End Processes and Communication Flows Integration**

Ensuring that information is shared consistently and on time among SCM stakeholders—namely marketing, sales, logistics and purchasing—is key to enabling a smooth process. Shared decision making and information flows should be pursued both through organizational means (such as the supply chain committee and coordination functions) and by appropriate integrated information systems that provide a common tool to support demand forecast, inventory management and order processing.

"Optimized supply chain management can generate yearly EBITDA BENEFITS OF €10M–15M."

""
An SCM dashboard should be designed to define and measure shared objectives that drive more end-to-end thinking and collaboration, encompassing all operational, customer, staff and financial dimensions.

The implementation of an integrated SCM system enabled a Southern European mobile operator to improve collaboration among SCM process stakeholders and process control. This improved overall device availability, delivering up to €5m in annual benefits.

**How to Select the Right Improvement Options**

Telecom operators can make a wide range of improvements to their Supply Chain Management. Each one will have varying degrees of impact on revenues and costs, and will have its own specific level of implementation complexity. Figure 4 summarizes and compares the different improvement options.

Selecting the most appropriate options will depend on operators’ specific objectives and conditions. However, a few considerations may help direct improvement actions:

- Improvement levers impacting revenue usually generate the highest EBITDA impact. Given operators’ huge sales volumes, even limited improvements—for instance improving device availability at points of sale—can provide significant benefits.

- Many improvement levers impact both revenues and costs. For instance optimized stock management will reduce shortages—thus increasing revenues—and at the same time will lower carrying costs.

- Several improvement levers are simple and quick to implement. Lifecycle-based inventory management and product portfolio optimization can be considered “quick wins” and do not require much more than a management decision.

Cross-functional decision-making processes and systems are usually the most effective improvement levers, with relevant impacts both on revenues and costs.

These improvement actions are not totally independent from each other. While it is possible to design and launch very focused SCM improvement actions, operators should consider that “cherry picking” single improvement streams may not maximize potential benefits. In our experience, the most effective initiatives for SCM optimization follow an end-to-end approach, involving all the stakeholders (marketing, logistics and purchasing) and addressing in a structured framework all potential improvements along the supply chain management value chain.

<table>
<thead>
<tr>
<th>Optimization Levers</th>
<th>Optimization Actions</th>
<th>Impact on Revenues</th>
<th>Impact on Cost</th>
<th>Roll-Out Complexity</th>
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<tbody>
<tr>
<td>Supplier Relationship Management</td>
<td>Collaborative planning</td>
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<td></td>
<td>Vendor performance monitoring</td>
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<td>Cost-conscious service orientation</td>
<td>Tailor service to customers’ value and expectations</td>
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<td></td>
<td>Improve data on product availability and real demand</td>
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<td></td>
<td>Tailor inventory size to individual device lifecycle</td>
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<td>Operational excellence</td>
<td>Optimize product portfolio</td>
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<td></td>
<td>Avoid inventory fragmentation</td>
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<td>Define and enforce returns policy</td>
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<td></td>
<td>Leverage collection points to improve after-sales</td>
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<tr>
<td>Flexibility and reactivity of SCM model</td>
<td>Reduce the number of different “models”</td>
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<tr>
<td>End-to-End processes and communication flows</td>
<td>Apply shared decision-making process</td>
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<td></td>
<td>Integrate information systems and dashboards</td>
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Legend: Low ( ) ( ) ( ) High ( ) ( ) ( )

Source: Capgemini analysis.

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Innovation has always been central to the growth strategies of telecom companies, but today the pressure to innovate is greater than ever before. European operators are faced with saturating markets, fierce competition and technological disruptions, which are set to impact their revenue outlook.

Telecom operators need to review their innovation strategies to adapt to the new competition paradigm. Internet players are breaking ground in communications territory, successfully launching services that are competing head-on with traditional telco offerings. Consider, for example, that operators’ communication services—fixed voice, mobile voice and SMS messaging—accounted for 95% of total time spent on communications in 2000 in France. This was down to 53% in 2006, with instant messaging and email emerging as the new hot favorites. Not only have online players been successful in creating and popularizing new services, but they are also setting a blistering pace of innovation. Yahoo!, for example, has launched eighteen versions of its instant messenger in the past 2 years, incorporating features such as voice calling, interoperability with MSN and integration with various content services and web applications.1 Google launched thirty-three major products and upgrades in 2006 alone, in addition to partnerships for new services and features.

Traditional long ideation and product development cycles are, therefore, no longer sustainable compared to the speed and agility of Internet players. Telecom players will, hence, have to innovate at a much faster pace than in the past if they are to compete effectively against online players. Innovation is also increasingly occurring outside the corporation. Consumers and communities are shaping the new telecom landscape. Open source development tools are enabling online consumers as well as developers to play an active role in developing, testing and refining new services. Skype, for example, opened its instant messaging and presence platform in 2005, leveraging nearly 3,500 developers. Third-party developers have launched nearly 100 hardware and 300 software products based on Skype’s open platform. The initiative has expanded Skype’s reach to a wide range of services such as online gaming, e-commerce and enterprise applications.

This changing business environment is putting pressure on telecom players to innovate at a faster pace than ever before.

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1 Company website.
to refresh their approach to innovation. In this report by the Capgemini TME Strategy Lab, we look at the best practices of successful and innovative online players and make recommendations on how telcos can best leverage the lessons learned from these Internet companies.

Lessons from Innovative Online Players

The leading online players are regarded as some of the most innovative companies in the world. Google, Microsoft, Yahoo! and Skype regularly feature at the top of business magazines’ lists of the most innovative companies, ranking far ahead of the nearest telecom operators. These companies also invest heavily in R&D: Google and Yahoo!’s R&D spends have grown from 9.8% to 11.6% and from 11% to 13% of their revenues respectively over 2005–2006. Innovation is part of these online companies’ DNA since it is essential for survival in the highly competitive, fast-evolving world of the Internet. Online players are creating an innovation culture, which helps them to stay flexible and receptive to new opportunities despite their increasing size of operation. In this section we will examine some of the best practices adopted by online players at each stage of the innovation cycle, from ideation and development to launch and post-launch (see Figure 1).

Ideation

Ideation is the process of generating and selecting ideas. Companies tend to restrict origination of ideas to a core group of advisors and researchers, failing to tap into its large base of employees. Online players, however, have been able to nurture a strong culture of innovation, opening the doors for any employee to contribute new ideas. The online players use brainstorming events to stimulate idea generation outside the usual office routine. Microsoft runs “Hack Days,” informal sessions that are open to all employees.

Figure 1: Online Players’ Innovative Approaches to the Ideation-to-Delivery Cycle

Source: Capgemini TME Strategy Lab analysis.
management at “open office hours” sessions, which are held three times a week. The proposal for a personalized Google home page emerged at one of these sessions.

Internet companies also allow employees to be involved in the projects from idea to fruition (see Figure 2). This helps in energizing and inspiring their employees as they feel a deeper sense of involvement. Google, for example, gives employees' full ownership of their concepts through all stages of development. Engineers are free to spend 20% of their time on projects that they are passionate about, and if an idea gets the green light, they can retain responsibility for the project all the way through to launch.

It can be difficult to sustain the creative energy of start-ups as companies grow into large, bureaucratic organizations, but Yahoo! and Google have both taken steps to retain the entrepreneurial spirit. Yahoo!'s Brickhouse, for example, is a division launched in March 2007 to foster new ideas and hold on to talent that would otherwise seek funding elsewhere. Google, meanwhile, has maintained a relatively flat organizational structure, with an employee-to-manager ratio of 20:1 compared to the technology industry average of 7:1, and its innovative culture has helped to limit its attrition rates to less than 5%.

**Development**

The online players are adept at rapidly taking a product from initial concept to launch. Google Maps, for example, went from trial to launch within 8 months. Online players are able to achieve this with limited resources through a combination of small, agile project teams and the use of beta products. This helps them to launch early and continue developing by incorporating consumer feedback. Google, for example, sets up interdisciplinary teams of 3–4 people to ensure fast decision making and therefore quick time to market. Team members from cross-functional backgrounds are able to bring different perspectives as well as quicker problem solving. Specifications for new products are also loosely defined so that the development phase is flexible, with each team member able to influence the project's direction and suggest new features.

Furthermore, beta testing helps to shorten the product development cycle significantly. By involving consumers early, decisions are made based on users' feedback, thus avoiding lengthy internal discussions. Beta products are launched at an early stage in their development, even if they have few features, and product improvements are carried out over time, based on consumer feedback. Google products such as Gmail, Desktop and Talk, for example, were all launched as betas before being developed into fully featured commercial releases. Google also invites user feedback for each of its products by setting up dedicated group discussion sites. Google manages consumer expectations of these relatively under-developed prototypes by using “maturity labels” to indicate that a product is still at an experimental stage (see Figure 3).

In comparison to a conventional set-up where product launch is preceded by lengthy research, development, production and testing, Internet companies are far more tolerant of failure since they can realize mistakes early and rectify them. Internet players regard mistakes as learning opportunities to drive further improvement. Dogster.com, a social network for pet lovers with nearly 300,000 members, credits its success to learning from failure. The site launched features quickly, observed customer behavior and fixed issues on the fly.

**Launch**

Although the online players have efficient internal innovation processes, they are constantly searching for companies that can help them launch new products rapidly (see Figure 4). Google and Yahoo! for example have acquired eighteen and twenty

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companies respectively in 2005 and 2006, leading to new products and features: Google acquired KeyHole Corp in October 2004, which led to Google Earth within 7 months, while Yahoo! acquired Dialpad in June 2005, which helped it add VoIP features to its IM client by December 2005.

Integrating start-ups can be challenging because of the culture clash with the large, multi-billion dollar acquirer organization. The value of a start-up often resides not only in the patents it owns but also in the skills and experience of its founders and employees. If these employees choose to leave, the value of the acquisition is diminished. Online players have a successful track record of integrating start-ups by ensuring that ownership of the products remains with the original developers. For example, Jason Goldman, who joined Google from Blogger, continued to oversee the latter for 3 years after its acquisition. Some of the talented people from the acquired organization are also given key positions to develop new products and strategy. For example, the founder of Flickr, which was acquired by Yahoo!, now heads its incubator initiative, Brickhouse.

Figure 3: Various Labels Used by Google for Products in Development Stage

<table>
<thead>
<tr>
<th>Label Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private beta</td>
<td>Early on in their development stage, products are offered for testing to Google staff and family, or to trusted Google users. E.g. Google trusted testers programme.</td>
</tr>
<tr>
<td>Google Lab</td>
<td>Experimental products are first made available to the public through the Google Lab page. E.g. Google Maps was first launched under the Lab category.</td>
</tr>
<tr>
<td>Public beta</td>
<td>Most Google products are commercially launched as beta versions. Some widely available products keep the “beta” label for many years: e.g. Gmail has been in beta testing for more than 2 years and has been adding various features over time.</td>
</tr>
<tr>
<td>Non Google branded</td>
<td>Some products are launched outside the Google brand to experiment with innovative user interfaces. E.g. Searchmash search engine.</td>
</tr>
</tbody>
</table>

Source: Capgemini TME Strategy Lab analysis.

Figure 4: Select Acquisitions Made by Yahoo! and Google to Grow Their Service Offerings

Source: Capgemini TME Strategy Lab analysis; company websites.

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10 Company websites and press releases.
Google and Yahoo! have opened APIs to a variety of products, leading to creation of thousands of mash-ups. Google APIs, for example, has led to creation of more than 1,000 mash-up sites, far more than the number of products offered by the company itself (see Figure 5). Housing Maps, for example, is a mash-up created from Google Maps and real-estate listings from Craigslist, which has attracted nearly 1 million visitors to the site.

Opening up development to third parties carries the risk that the online player will lose control over the original product. This can be managed, however, by only issuing APIs for add-on services and features, while retaining control over the core technology. Google offers tools to customize its search engine, but the core code is not open source. Online players have also introduced certification programs—Skype certifies hardware and software solutions developed using Skype APIs in order to maintain quality standards.

In summary, the online players’ approach to innovation is built on several key components. A strong company-wide culture of innovation ensures that creative employees can contribute to the ideation of new products and then take ownership of the development process right through to launch. The development cycle is short, since the beta model allows for products to reach the public before they are fully tested. The online players also leverage external sources, whether by acquiring complementary start-ups or providing open development tools.

**Recommendations**

The telecom environment is facing far-reaching changes, driven by the popularity of new online services, consumer innovation, open source development and new business models. Participating in this evolving space will mean significant changes in the innovation approach and mindset for most telcos. In this section, we suggest key measures that telcos can consider to tap the internal and external ecosystem for driving innovation.

**Driving Internal Innovation**

Telcos have evolved into massive organizations with a large pool of human resources, rigid processes and complex hierarchical structures. Considerable investments and effort are dedicated to maintaining legacy networks, delivering traditional communication services and managing a large existing customer base. In such an environment, driving innovation at grass-root level, fostering a culture favorable to creativity and providing adequate focus to developing innovative services, can prove to be a formidable task. Telcos can, however, apply some of the lessons learned from innovative online players to leverage employee creativity and create a more nimble and responsive organization.

**Employee Involvement**

As evident from the approach by online players, employee contribution

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Telecom operators should consider creating separate structures for incubating new business ideas and research within the larger organization. This can help provide a degree of autonomy to the teams, allowing for speedy decision making. These units also need to operate on different performance goals, processes and reward systems, which allow for experimentation and failure. France Telecom’s research arm for radically new business ideas, Explocenter, is independent of the rest of the organization. The Explocenter functions like a start-up, with small teams working on separate projects and a governance committee, which acts as a venture-funding body for each project.

**Benefiting from External Innovation**

Telcos have always tapped vendors, developers and external researchers to develop new technologies and products. These interactions have usually been restricted to a select group of external vendors and third-parties, devoted to creating proprietary services and requiring heavy investments in developing intellectual property. However, the talent landscape is changing and it is now possible to access a large pool of innovators, working outside the confines of the traditional enterprise. This pool comprises not only researchers and third-party developers but also consumers, who are willing to lend their skills to creating new products and services. Telcos, therefore, have various options to leverage and collaborate with the external ecosystem for driving innovation.

**Tapping Innovation Networks**

Various innovation networks or communities are available today, acting as marketplaces for rapidly accessing new talent as well as intellectual property. Organizations benefit since they do not need to employ resources with new skills or spend money on developing new technologies and products in-house. Networks such as Yet2.com and Ninesigma, for example, provide a forum for prospective buyers and sellers of intellectual property to interact and trade intellectual property. Companies can scout for relevant innovative solutions, identify unique technologies or product ideas, and acquire the ones they deem useful.

**Open APIs**

We believe that telcos can learn from Web 2.0 principles and consider opening APIs in order to transition to a “Telco 2.0” era. This will help telecom players to foster an extensive ecosystem of open developers and independent vendors to innovate in voice, messaging, data and video services. Orange and BT have opened APIs across their voice, messaging, location and presence platforms, allowing application developers to...
deploy new services and features (see Figure 6). Since March 2007, Microsoft and BT Group have been using TopCoder, an organizer of computer programming competitions, to run a “mash-up” contest. The competition encourages developers to merge telecommunications features such as voice and text messaging with Web-based applications such as mapping and search. Winners can grab prizes ranging from $2,500 to $25,000.

Operators can also work with the open source community, benefiting from lower development costs, increased flexibility and a rich ecosystem of developers. NTT DoCoMo and Vodafone, along with handset vendors such as Motorola and Samsung, have teamed up to create a single mobile phone software platform based on the Linux kernel that will reduce time to market as well as development and testing costs. Moreover, unlike in the proprietary platform model, external developers will be able to create applications swiftly, enabling the proliferation of services on the mobile devices.

However, we believe that telcos should not only open their platforms to third-parties but also jointly develop new services to maximize revenue opportunities. Orange, for instance, not only provides open APIs but also offers its own and partner services to consumers; for example Orange Messenger has been developed in partnership with Microsoft, integrating France Telecom’s VoIP and SMS services with the Windows Live Messenger. Operators, on their part, can bring in the long-standing billing and service relationships with their customers for products that they offer in partnership with developers. This will help them differentiate the services from entirely unmanaged third-party services available over the open Internet.

**Involve Consumers**

It is becoming possible to tap into consumers’ feedback quite early in product development stage. And technology-savvy consumers themselves are interested in trialing and contributing to service development. Telcos, therefore, can rely not only on researchers and vendors but also consumers to innovate and propose new features and applications. Some operators have started using beta releases and prototypes for services such as online communication, content and mobile applications. Swisscom Mobile Labs is beta-testing a host of mobile applications such as PC-to-mobile multimedia messaging, personalized mobile TV channels and video sharing. It has also set up Web forums for suggestions and feedback from users to improve its products. Vodafone Betavine goes a step further and enables users to upload self-created mobile applications and seek feedback on their creations from other users.

Web 2.0-based innovation solutions are also available from vendors such as IBM, which can be used by operators to support collaboration with the external community for rapidly building and prototyping new services and products. In the US, for instance, Sprint-Nextel is piloting the IBM solution, using blogs, wikis, social tagging, surveys and polls to support trials and capture consumer feedback.¹³

**Acquire and Integrate Start-Ups**

Telcos should scout for technology start-ups as a source for innovation, to gain new and unique capabilities. This strategy can greatly reduce the time to market and cost of developing new technologies. By acquiring or

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collaborating with start-ups in an early stage, telcos can benefit from innovative concepts and patents, as well as gain capabilities at lower costs. Some telcos have started dedicating resources to monitoring and exploring the market for innovative technology start-ups completely within the standing organization can destroy any focus on innovation. Worse, it could result in the exit of the most innovative employees due to the contrast between the flexible environment within the start-up and telcos’ process-driven way of working.

Figure 7: Evaluation of Options for Integrating Acquired Start-up Companies

<table>
<thead>
<tr>
<th>Integrate Completely</th>
<th>Separate Entity</th>
<th>Integrate Selectively</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employee Retention</strong></td>
<td>Cultural differences may impact employee motivation</td>
<td>Employees continue to work in a familiar organization</td>
</tr>
<tr>
<td><strong>Innovation Focus</strong></td>
<td>Post-merger integration can distract focus from innovation</td>
<td>Post-merger issues at operational level are eliminated</td>
</tr>
<tr>
<td><strong>Processes and Culture</strong></td>
<td>Standard organization procedures are forced upon acquired entity</td>
<td>Existing flat structures and swift decision making processes remain in place</td>
</tr>
<tr>
<td><strong>Efficient Resource Utilization</strong></td>
<td>Redundant functions are eliminated</td>
<td>Start-up company can benefit from a larger pool of resources</td>
</tr>
</tbody>
</table>

Source: Capgemini TME Strategy Lab analysis.

Companies. BT has “Innovation Scouts,” who perform due-diligence on an average of over fifty start-ups during a single year. Similarly, France Telecom has created an investment arm, Innovacom, to explore new technology start-ups and support them through technological and financial aid. Innovacom has achieved several technological breakthroughs in telecoms with twenty-five associated companies going public and acquisition of over seventy-five companies.

The integration of start-ups has its own set of challenges, different from those faced when integrating a large company acquired with a consolidation motive. Integrating the start-up completely within the standing organization can destroy any focus on innovation. Worse, it could result in the exit of the most innovative employees due to the contrast between the flexible environment within the start-up and telcos’ process-driven way of working.

Telcos can overcome this challenge by retaining the acquired company as a separate entity or opt for selective integration to minimize post-merger issues and avoid disrupting the start-up (see Figure 7). However, when the acquired company is held as a separate entity or affiliate, it does mean there is likely to be some duplication of function between the two entities. Additionally, cross-allocation of resources between organizations is difficult.

Selective integration is, therefore, recommended since it can help telcos integrate the common functions such as finance, manufacturing to gain process efficiencies while keeping the research and development teams as fairly autonomous units. This can also help to leverage the skills and knowledge base of the telco organization through cross-allocation of resources as required. Cisco has used this approach for most of the technology start-ups it has acquired to expand its product portfolio.

In conclusion, in light of declining growth prospects and an increasingly competitive telecom market, operators need to rethink their approaches to innovation. Moreover, since communication as well as content services are increasingly being offered by Internet players over IP networks, network and infrastructure control will no longer serve as a source of competitive advantage for telcos in the future. Online service providers are redefining the pace of innovation in the telecom industry and numerous lessons can be learned from Internet players’ innovation approach. By applying some of the best practices followed by the successful online players, telcos can drive innovation internally as well as tap the external ecosystem to compete effectively in the new telecom landscape.

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Transforming Telcos: Have the Giants Learned to Dance?
by Didier Bonnet, Jean-François Lendais and Alastair Nash
In collaboration with the Economist Intelligence Unit

Abstract: The highly competitive and fast changing telecom landscape is creating the need for business transformation in the telecom industry. But change projects are inherently complex to manage. Capgemini Consulting and the TME Strategy Lab, in cooperation with the Economist Intelligence Unit, conducted a cross-industry survey to identify the critical factors required to ensure successful implementation of business transformation projects. Our analysis suggests that while change is becoming an inherent part of telco strategy and planning, the ability to achieve change effectively is less consistent. Senior management support and leadership, as well developing transformation skills within the employee base, will be crucial to accomplishing successful implementation.
The need for business transformation in the telecoms sector has never been greater. Faced with ever tougher market conditions, operators are undertaking major transformation projects aimed at creating new revenue streams and radically aligning their cost structures with the competitive environment.

When Capgemini Consulting published its book titled Transforming the Organisation in 1995,¹ the key drivers for the transformation of telcos were linked to the post-privatization agenda, the need to build more market-facing organizations, as well as the new regulatory regimes designed to encourage higher levels of competition in this industry. Whereas most of the lessons and frameworks described in the book are still valid today, some of the market factors behind transformation have changed.

Today, one of the most powerful reasons behind transformation projects is the slow down of growth in saturated fixed and mobile markets. Fixed voice revenues in Western Europe, for example, are forecast to decline by an average of 1.3% a year between 2006 and 2010.² Fiercer competition, too, is putting operators under increasing pressure to find new sources of profitable growth. Incumbents have been particularly affected by changes in the competitive landscape, with Deutsche Telekom, for example, losing over 1.5m fixed-line subscribers in the first 3 quarters of 2006.³ Technological shifts, such as the move to IP-based networks, and the emergence of disruptive technologies like WiMax, are additional catalysts for change, which along with convergence, are opening up opportunities for new entrants and threatening established business models.

Business transformation has become an essential strategic response to these market challenges, but change projects are inherently complex to manage. Delivering large-scale transformation involves training and coordinating multiple teams, overcoming employee inertia and managing the resistance that is a common response to change. If these challenges are not managed effectively, there is a risk that the project will be delayed, over budget or fail to achieve its ultimate objectives.

Capgemini Consulting, in collaboration with the Economist Intelligence Unit, decided therefore to conduct a cross-industry survey with the primary aim to assess the critical success factors required to implement transformation projects successfully. We also evaluated the experience of European businesses as they grapple with implementing complex change programs in order to recommend ways in which executives can improve the success rate of transformation initiatives in their organization.

The project types covered by our definition of business transformation are as follows:

- Corporate transactions (such as M&A and divestitures)
- Outsourcing/offshoring
- Strategic changes (such as changes of business model)
- Enterprise-wide technology projects
- Cross-functional improvement programs
- Enterprise-wide organizational restructuring; and
- Value-chain optimization initiatives (such as major supply chain projects)

⁴ Capgemini Consulting, Economist Intelligence Unit, “Reinventing the Organization: Trends in Business Transformation,” December 2006. The findings used in the article are based on two main strands of research: an online survey of 125 senior executives across 18 industries in Western Europe at businesses with minimum annual revenues of $500m and direct interviews with 15 senior executives.
Types of Business Transformation in the European Telecoms Market

The pace of transformation does not appear to have slowed down in the past few years. Business transformation programs have become central to the corporate agenda, and it is now unusual for large companies not to be in the throes of either planning or implementing some form of major change program. Our survey shows that, on average, telecom and technology companies have undertaken seven transformation projects (as characterized in our definition—see page 55) over the past 3 years, and the vast majority predicted that their level of transformative activity would remain the same or increase over the next 3 years.

The most common types of business transformation programs identified in our study were: outsourcing, corporate transactions and organizational restructuring (see Figure 1).

Outsourcing/Offshoring

The survey highlighted that most companies had undertaken outsourcing projects in the last couple of years. Many telco business transformations in the 1990s were focused on cost savings through staff reduction and business process reengineering. However, today, telco CEOs are looking at transforming their cost structures by using outsourcing as a way to decompose and simplify their value chain as well as make a large part of their operational costs variable. The most obvious areas where operators are looking at the cost-saving potential of outsourcing are non-core and back-office services such as IT maintenance, HR or finance to enable the organization to focus on a smaller set of key business issues. In late 2006, for example, Vodafone finalized an outsourcing agreement as part of its strategic efficiency program, which will result in most of the operator’s IT staff transferring to subcontractors, to deliver annual cost savings of some £170m within 3 to 5 years.5

With the increased focus on radically changing their cost structure, telcos are now also outsourcing parts of their operations that were considered untouchable only a few years ago. For instance, some European mobile operators are outsourcing their core network operations and management to equipment vendors. This enables telcos to not only lower costs but also leverage the skills of their suppliers, who are able to deploy the latest technologies as well as hire and train the requisite resources. In February 2007, for example, KPN’s German mobile operator E-Plus signed a contract worth an estimated €1.5bn for Alcatel-Lucent to take over the operation and maintenance of E-Plus’s network.6 Other operators to have gone down this route include Telfort, T-Mobile and Orange in the Netherlands.

In their quest for designing much more flexible cost structures, telcos are now also embracing offshoring as an integral part of their transformation. Whereas this phenomenon has been prevalent for many years in the US, European companies have been slower to react. This is radically changing today with large telcos establishing development or contact centers in India, Eastern Europe and North Africa depending on both labor arbitrage and language requirements. British Telecom’s $1bn outsourcing deal with Tech Mahindra in India is a good example of this trend, where the latter will provide business process management and network-centric IT services to BT Global as well as its clients.7

Corporate Transactions

The second most frequent type of transformation projects are corporate transactions such as mergers & acquisitions or divestitures. M&A has become a compelling strategic tool for operators keen to find further growth in the context of saturated domestic markets. European M&A activity in telecom and media increased in 2006, with 745 deals of over €5m, up 22% from 2005.8

Markets have begun to consolidate across the region with operators acquiring companies to boost their subscriber base and/or reduce the number of competitors. Telefónica expanded its European footprint into the UK and Germany by adding 25 million subscribers when it acquired O2 for £17bn in 2005. In these cases, post-merger integration obviously puts a high demand on

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business transformation that is increasingly commonplace in telecom companies. This involves designing new organizational models as well as operational restructuring to increase customer integration, improve efficiency and reduce costs. In the past few years most operators have used a combination of both to improve their operations.

As a business transformation tool, organization design has to be used sparingly as, if not properly implemented, it often leads to dysfunctional behaviors, turning the focus of the company inwards to the detriment of its customers. Successful companies that are using organizational design as part of their transformation know that the "boxes and wires" are only an approximation of the way the organization will develop and operate in the future. Organizational design is the framework within which goals, measures, rewards and teams will develop organically to solve client problems in an effective manner.

In the constant quest to boost top-line growth, European operators are also building up their presence in fast-growing emerging markets. In 2006 Vodafone, for example, spent around £3.3bn on stakes in Turkey, Africa, Egypt and Eastern Europe, and acquired India's Hutchison Essar for $11bn in 2007. In addition to the cultural challenges of such expansion, this growing trend for globalization is driving a new set of transformational needs for telcos as it requires them to adapt their organizations, harmonize business practices and leverage economies of scale.

Moreover, with the large amount of investment money available on the financial markets, private equity funds are now playing a larger role in the telecom space, adding to the pressure to change for some senior executives in telcos (see separate article on Private Equity in Telecom and Media in this edition of Insight).

Organizational Restructuring
Enterprise-wide organizational restructuring is another form of business transformation with synergy realization and restructuring becoming large parts of the transformation agenda.

In summary, business transformation has become a key element in how telecom operators are seeking cost efficiencies as well as revenue growth. Change programs can be risky to implement, however, and in the next section we identify the critical success factors required for transformation programs to succeed.

On average, telecom and technology companies have undertaken seven transformation projects over the past 3 years.
Critical Success Factors for Business Transformation Projects

Every transformation project consists of three key stages: identification of a need for change; formulation of the project’s objectives; and implementation of the project plan. The most challenging phase of a transformation project is the implementation stage with survey respondents regarding it as by far the riskiest phase (see Figure 2).

When our survey respondents were asked to identify the key factors that will ensure success in business transformation projects, three clear leaders emerged: “support from senior management,” “alignment with overall strategy” and “buy-in from employees” (see Figure 3). In this section we examine the critical success factors that determine whether a transformation project will be implemented successfully as well as looking at how respondents measured the success of their transformation programs.

Support from Senior Management
Support from senior management was judged to be by far the most important factor behind successful transformation projects. And for long-term success, the second most important was judged to be “having executives in the company who champion business transformation.” The need for having the entire senior management team aligned and actively supporting the transformation objectives was seen as critical by the majority of respondents.

Alignment with Overall Strategy
One of the most important success factors in business transformation is to clearly demonstrate the strategic purpose of the change demanded from the organization. This can only be achieved through continuously referring to the goals and the future state of the organization.
CEOs and their management teams must therefore set a vision and a direction for the business that provides a context, a rationale and a clear explanation for the work that lies ahead. This vision must be reiterated continuously up and down the organization and throughout the life of the program.

The sense of vision is often lost during the implementation stages of transformation projects as the day-to-day problems become overwhelming. In addition, the project teams tasked to implement the change are often functional experts who do not have the skills or do not spend enough time "selling" the transformation vision to lower tier staff in the organization.

The importance of communicating a meaningful vision to all levels of the organization is paramount. Successful transformations have clearly defined communication streams of work dedicated to this activity with strong involvement from senior management for the duration of the program.

Buy-in from Employees

Successful implementation of large-scale change depends on the commitment of all the employees affected by the project and its absence can jeopardize the whole exercise. Indeed, our survey found that the second most common reason for project failure was “non-acceptance or non-adoption by employees.” A key underlying reason for resistance among all employees, including managers, is a lack of awareness of the business need for change. Effective communication of goals will ensure that everyone understands why transformation is necessary and ultimately beneficial.

Employee buy-in can be challenging to achieve because resistance is a natural human response to change. Staff resistance can result in missed deadlines and substandard implementation of the projects initiatives. These problems can consequently increase the projects costs and reduce its benefits, or even lead to the abandonment of the entire program. A large European operator, for example, recently faced a major setback in the implementation of its enterprise-wide restructuring plan when staff representatives voted against transferring a large number of employees to a new unit.

Resistance to change was also an issue for the CEO of a European incumbent who wanted to implement a large-scale cost reduction plan. The CEO had struggled to win support for the project from his business unit managers. Capgemini helped the CEO to bring about a turnaround in attitude through the use of collaborative workshops. By getting all the key decision makers in the same room, looking at the gloomy macro picture together and providing an open forum for debate, the workshops resulted in a significant change of mindset. Thanks to the commitment of the managers, the resulting transformation plan delivered significant financial benefits ahead of schedule.

Targeted training and incentive schemes can also help to win employee commitment. As part of its NeXT transformation plan, France Telecom reinforced its staff incentive program and increased its employee training efforts by 25%. In 2006, British Telecom awarded eligible employees shares with an overall value of around £22 million in recognition of their contribution to the company’s transformation and growth.

Measures of Success

It is critical to use appropriate indicators to measure the extent to which a transformation project is successful because these measurements can have a major influence on the way in which a project is implemented. The three success measures ranked most important by our respondents were “increased revenues/profitability;” “increased shareholder value;” and “recognized as a success by customers” (see Figure 4).

Increased profit is the ultimate goal of any business transformation project, and it is easy to see how it can be applied as a success criterion to

<table>
<thead>
<tr>
<th>Measure of Success</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased revenues and/or profitability</td>
<td>69%</td>
</tr>
<tr>
<td>Increased shareholder value</td>
<td>42%</td>
</tr>
<tr>
<td>Recognized as a success by customers</td>
<td>31%</td>
</tr>
<tr>
<td>Improved internal efficiency</td>
<td>29%</td>
</tr>
<tr>
<td>Considered a success by employees</td>
<td>14%</td>
</tr>
</tbody>
</table>

Source: Capgemini analysis.

Tips for Successful Business Transformation

- Remember that business transformation is not a one-off exercise—it is essential to continuously scan the external business environment and assess the need for business transformation on an ongoing basis.
- Ensure that everyone in the organization understands the objectives of business transformation and what it means for them. It is the role of the chief executive to provide the necessary context and rationale.
- Remember that implementation is the riskiest stage of a business transformation project, so it is important to direct attention and energy here—not just to the setting of objectives. Executives who initiate business transformation projects should not expect to take a back seat during implementation. They should continue to play an active role for the duration of the project.
- When determining the success of business transformation, it is important to look beyond the financials and consider the impact on shareholders, employees and, above all, customers.
- Ensure that you have strong communicators on a business transformation team who can promote the project and motivate employees. It is not enough to select only “functional experts.”
- Promote a culture in the organization that eschews bureaucratic processes in favor of more agile decision-making and create an environment in which employees feel empowered to take initiative and share knowledge.
- Ensure that the organization has a flexible structure that means projects can be scaled up or scaled down as the need dictates. This requires the development of people who can manage change, are good at multi-tasking and can be rotated from one project to another without losing focus.

projects such as major outsourcing initiatives of enterprise-wide technology upgrades, which should generate immediate, quantifiable efficiencies upon completion.

However, financial objectives are not always sufficient in themselves. The bottom-line impact of, say, strategic changes or mergers and acquisitions can be difficult to calculate, especially in the short term. Furthermore, a transformation plan with the primary ambition of increasing shareholder value is unlikely to resonate with lower tier employees who may not even own shares and so will not see themselves featured in the vision. For these reasons, financial goals should not be the only criteria by which a project’s performance is judged.

Rather than focusing only on financial numbers, a balanced scorecard approach can help to take into account the impact on customers and employees when evaluating the performance of a transformation project. Vodafone UK, for example, partnered with Capgemini to improve the customer experience and back-office efficiency of its Enterprise Business Unit. The project was judged a success not only because it generated quantified financial benefits, but also because it delivered tangible improvements in the units employee and customer satisfaction scores.

Mastering the Art of Implementation: Are We Making Progress?
Reflecting on over 10 years of business transformation experience, it is clear to us that telecom companies have made significant progress in both designing large transformation programs and understanding the factors that are critical to their success. From our research, however, two main areas require continuous attention to enable telcos to successfully achieve the next phases of transformation: the need to embed pervasive leadership into transformation program implementation and the need to enhance transformation skills within the DNA of the organization.

Need for Pervasive Leadership
As in so many areas of business, it is far easier to plan a transformation project than to make it work. A common shortcoming of many companies is that they spend too long setting objectives and not enough time and resources on the implementation stage. Consider, for example, one operator who spent nearly a year planning for its transformation through multiple strategic studies and senior executive retreats before it felt ready to launch into the implementation proper. At that stage the business, carried by an improving market, started to perform better and the CEO became reluctant to commit to more than a handful of people to support the implementation of his transformation plan (“We must not disrupt the day-to-day operations,” “We have a business to run,” etc.). The result was predictable: The people tasked to support the transformation could not maintain the momentum and perform their day jobs so the program faded away within 6 months.

If they are to make business transformation successful, however, senior executives will need to see their role as broader than just setting strategy. Making accurate diagnoses, identifying root causes of problems, tracking progress on a regular basis, designing corrective actions and ensuring everyone shares a commitment to the project are all examples of what CEOs do to implement successful transformations. As a CFO of a major broadcaster concluded, “When CEOs shunt transformation to others for
implementation and deployment, that is often where such projects go wrong.”

Enhancing Transformation Skills

Ultimately, the success of a transformation project depends on the flexibility of the people involved. Companies need people with diverse skillsets who are good at multi-tasking and can be moved between business units rapidly and frequently with no loss of focus. This type of flexibility results in quicker, deeper implementation of transformation projects with less resistance to change.

Companies need to proactively enhance the transformation skills of their employees by introducing training, and incentive and promotion structures geared to “project-oriented” people who can work effectively through change. British Telecom, for example, launched a major training program for its 7,000 internal IT staff as part of its transformation from a traditional telecoms service provider to a supplier of converged ICT services. The operator introduced 90-day cycles for projects to introduce greater flexibility and increase employees’ exposure to change. Staff are regularly taken off project work and put “on the bench,” where they receive further training between assignments. The result is a workforce that has the skills to adapt swiftly to evolving business requirements.

Our survey found that some companies keep their transformational skills fresh by moving managers from one role to another. In practical terms, this could mean a horizontal move for someone senior who has been in the same role for a long time and may therefore be against change, or that a manager with no project-leadership experience could be given his or her own pilot project. Several of our telecom and technology clients have been asking Capgemini to structure formal “Transformation Universities” designed to instill the basic mechanics and methods of transformation in both their senior executives as well as their key operational managers.

Too often the belief is that transformation and change skills can only be learned at the coal face. Whereas fast learners who are able to deal with uncertainty can rapidly go up the transformation learning curve, the truth is that many managers will drown under the complexity of transformation and need to be trained and supported with the proper tools and methodology for coping with change under uncertainty. Spreading the good practices of transformation can indeed be conducive to alleviating the resistance to organizational change.

So, have the giants learned how to dance? The answer is not totally clear; while 86% of the respondents in our survey agreed that business transformation has become a central way of working, only 30% claimed that their organization was equipped to excel at transformation! Although business transformation has become central to the way in which telecom companies conduct their operations, it is rarely a natural capability for the individuals who are tasked with planning and implementing these projects. Business transformation programs are inherently complex, and the fear of change can create a powerful state of inertia, deterring executives from making robust decisions and creating a culture of mistrust among those employees who are affected by the change. As a result, successful business transformation requires strong leadership, clearly stated objectives that are understood by everyone involved or impacted by the project and a strong focus on the implementation stage.

As European telecoms companies continue to grapple with the challenges of slowing revenue growth, increasing competition, and convergence, the need for business transformation is likely to remain high on the corporate agenda. While change will remain a constant challenge in the years ahead, the mechanics of business transformation are likely to evolve, with a move away from individual projects that have a beginning and end towards an environment of constant change.

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The scale at which private equity firms are operating is also on the rise. In 2006, fourteen funds raised over $5bn while three went over $15bn. This compares to eight funds in 2005 and only one in 2004 able to raise more than $5bn. The availability of large amounts of capital combined with exceptional liquidity in the debt markets is enabling private equity firms to make large acquisitions, gaining majority control in companies through “leveraged buy-outs” (LBOs). Globally, the LBOs’ share of private equity investments by value has increased from 21% to 66% between 2000 and 2005. By contrast, the share of venture capital funds raised has declined over time, as investors are far more cautious of this route since the boom days of the late 1990s.

Private equity has not looked so promising since the glory days of the 1990s. Private equity firms raised a landmark €320bn globally in 2006, up from €235bn in 2005—which itself was already a record year. In Europe, 2006 set a new high with €90bn of private equity funds raised, exceeding last year’s milestone performance of €72bn (see Figure 1).

The current low interest rate environment is driving large institutional investors such as pension funds as well as high-net-worth individuals away from lower yield bond investments and towards better-performing private equity investments. Consider that in the UK, 10-year returns on private equity investments were around 16% as of 2005, compared with 8–9% for UK bonds and public equity. The scale at which private equity firms are operating is also on the rise. In 2006, fourteen funds raised over $5bn while three went over $15bn. This compares to eight funds in 2005 and only one in 2004 able to raise more than $5bn. The availability of large amounts of capital combined with exceptional liquidity in the debt markets is enabling private equity firms to make large acquisitions, gaining majority control in companies through “leveraged buy-outs” (LBOs). Globally, the LBOs’ share of private equity investments by value has increased from 21% to 66% between 2000 and 2005. By contrast, the share of venture capital funds raised has declined over time, as investors are far more cautious of this route since the boom days of the late 1990s.

Abstract: Private equity investments have scaled new highs in the past 2 years, showing a dramatic recovery from the economic downturn that plagued the beginning of this decade. The telecom and media sector especially has experienced large-sized buy-outs, with private equity players attracted to the stable cash flows and debt capacity of the leading industry players. Generating substantial returns from mega-sized investments is likely to present a challenge for these financial investors. Capgemini Consulting and the TME Strategy Lab investigated the challenges as well as the routes to unlocking value creation in the telecom and media sector. In addition to financial and operational restructuring, private equity players will need to focus on strategic and top-line growth opportunities in the acquired companies. Moreover, the financial investors will need to develop significant domain expertise to pursue the appropriate value creation strategies in the complex telecom and media sector.
Equity firms are also joining forces to participate in mega deals. Consider the $45bn buy-out of TXU in the US, which is the largest private equity buy-out announced in history and is sponsored by KKR, Texas Pacific Group and the private equity arm of investment bank Goldman Sachs. Even this may not be ambitious enough for some Wall Street mammoths: Home Depot, the US home improvement chain, was recently flagged up as a possible target for a private equity offer, valuing the company at close to $80bn. Market practitioners are openly predicting that a deal worth up to $100bn will happen within the next 2 years. In fact, all indications show that 2007 could see a record amount of money raised by private equity funds around the world.

In this section we analyze recent private equity activity in the telecom, and media and entertainment sectors.

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So private equity players, flush with funds, are eagerly deploying their capital to buy out large industry players. However, managing returns on these large-scale investments, in line with past performance, is likely to throw up some challenges. In this study, Capgemini Consulting and the TME Strategy Lab assess what is driving the spate of activity in the telecom and media space by private equity players. We also present key value-creation strategies being used by private equity players to garner substantial returns on their investments within the telecom and media sector. Last, we identify some important challenges that private equity firms can expect to face going forward and how they can overcome them.

**TME: A Hot Sector for Private Equity Funds**

The European telecom, media and entertainment (TME) sector has witnessed increasing merger and acquisition (M&A) activity in the last couple of years, finally breaching the €100bn mark in 2005. Last year, total investment in M&A activity was €150bn, but this is still far lower than the record €530bn seen in 2000. The sector is also seeing increasing interest amongst the private equity players. In Europe, private equity deals comprised 32% of total deals by value in 2006, compared with 20–25% over the previous 5 years. The total transaction value of deals backed by them was nearly €50bn in 2006, up from €31bn in 2005 (see Figure 2).

In this section we analyze recent private equity activity in the telecom, and media and entertainment sectors.
A majority of the deals in telecom were driven by large European incumbents, but private equity firms have also started participating significantly in the past 2 years (see Figure 3). The scale of transactions by financial investors in the telecom sector has been significant, rising from less than 10% of the total investment value in 2005 to 27% in 2006. At around €30bn in 2006, investments in the telecom sector comprise the largest share of private equity investments in TME as a whole.

Several private equity players have recently engaged in large scale deals, acquiring leading telecom players such as TDC, Wind and Eircom (see Figure 3). From an investor’s perspective, the financial model of these telecom companies is highly attractive. Usually with high EBITDA margins, recurring cash flows, high debt capacity and high barriers to entry due to technological complexity and regulatory environment, telecom companies meet the key criteria needed for funds to chip in.

The long-term and stable cash flows of the satellite industry have also led to significant private equity interest in recent years. While recurring cash flows allow for significant leverage, rising capacity demand, High Definition TV and VoD developments are likely to promise potential revenue growth for investors. Recent activity in this sector has also been driven by consolidation, which has thrown up opportunities for cost savings and efficiencies due to economies of scale. Intelsat, owned by private equity firms, acquired PanAmSat in July 2006 to create the largest satellite operator in the world. The consolidated entity is expected to benefit significantly from reduced costs, shared overheads and greater bargaining power in relation to customers in a fragmented market.

Consolidation is also giving rise to buy-out activity in the cable market. Maturing markets and a fiercely competitive environment are making it tougher for smaller players to survive in this sub-sector. Private equity player Cinven acquired and merged three cable operators in the Netherlands over 2005 and 2006, betting that a larger entity would compete more effectively against the incumbent.

**Media and Entertainment**

The overall value of M&As in the media and entertainment sector in Europe is lower, at nearly €43bn in 2006, compared with nearly three times as much in telecom. However, private equity interest in this space has accounted for nearly 40% of the deal value in the past 5 years, with around €19bn invested in 2006. Private equity players have acquired assets across various media sub-sectors ranging from radio, television, movies and music, to newspapers and directories (see Figure 3).
Traditional media companies in the publishing and directories business, with their stable cash flows, have attracted significant private equity in the past few years. KKR and Goldman Sachs Capital Partners acquired a majority stake in PagesJaunes in France in October 2006; Macquarie Capital Alliance consortium put in €1.82bn for the acquisition of pan-European directories business Yellow Brick Road, adding on Nordic directories business TDC Forlag for €650m in 2005; Apax Partners and Cinven Ltd. secured a €2.1bn deal for Dutch publisher VNU's Yellow Pages directories unit in 2004.

Private equity firms have also recently shown interest in content companies. EMI, for instance, rejected an unsolicited €3.7bn bid from a private equity firm in 2006. Endemol attracted some of the biggest private equity buyers such as KKR and Apax partners in early 2007. This recent attention is possibly due to opportunities driven by digital content distribution. Companies with compelling and successful content assets, which can be extended to new distribution platforms, therefore, are likely to continue to see merger and acquisition interest.

In the online space, companies are currently funded primarily by venture capital. However, as these Internet companies’ business models mature, acquiring large assets. Some of the mega deals being rumored include an $80bn buy-out of US telecom major Sprint Nextel. These examples indicate that private equity players are likely to continue to show interest in TME businesses as they offer the potential for significant returns through various value-creation initiatives.

**Strategic Route to Value Creation**

Private equity players are entering into mega-sized deals at high valuations, ensuring they have to work hard to generate appropriate returns. In addition to financial engineering and leveraged recapitalization to improve returns, private equity players need to focus on creating value post-transaction and look at opportunities to realize greater efficiencies as well as top-line growth.

**Cost Efficiency**

After a buy-out, private equity players initially focus on extracting significant value through operational improvements via cost savings, outsourcing and divestment of select assets.

A case in point is the €10.3bn buy-out of Denmark’s incumbent operator TDC in February 2006 by a consortium of private equity players such as Apax Partners, Blackstone Group, KKR, Permira and Providence Equity. After the buy-out, in order to reduce costs, TDC announced annual 5–7% job cuts. It also outsourced the full range of IT infrastructure services using a 7-year contract and transferred around 150 employees to its third-party services provider, CSC.

Further, a decision has been made to focus only on the Nordic region with TDC’s non-Nordic assets considered non-strategic and therefore set to be sold off. At face value, this seems to be working as TDC reported a 5% rise in EBITDA on relatively flat sales for 2006. Similarly, Babcock & Brown, which bought a 65% stake in Ireland’s Eircom for an enterprise value of €4.4bn in 2006, has embarked on stringent cost cutting, including selling off Eircom’s new head office building for €190m in a sale and leaseback deal.

While immediate gains can be extracted from making cost efficiencies and divestiture of assets, investors are also looking at more medium- and long-term horizons for value creation.

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Consolidation
Another strategy focuses on increasing the firm’s scale of operations through mergers and acquisitions. This entails more risk than extraction of simple cost efficiencies, as it requires a further infusion of capital and expert operational management to create value. It also requires the private equity players to know the business and competitive scenario thoroughly and take a long-term view of their investments. Therefore, this strategy is not as common as the deployment of cost-efficiency improvisation measures. However, several private equity firms have used it very successfully.

For example, in the Netherlands, private equity players Cinven and Warburg Pincus bought and combined three cable operators—Multikabel, Casema and Kablecom—into one Dutch cable company. This helped consolidation in a fragmented industry and through increased operational synergies put the combined company in a good competitive position to offer triple-play services, rivalling the incumbent KPN. Similarly, in France, Cinven created Noos-Numericable from several existing cable companies to create a similar advantage.

Another example is Intelsat’s acquisition of PanAmSat. In August 2004, a group of private equity investors including Apax, Apollo, Madison, Dearborn and Permira bought the satellite operator Intelsat for an enterprise value of €4bn. Two years later, Intelsat bought PanAmSat, another large satellite operator, for an enterprise value of €6.4bn. This created the largest satellite entity in the world with the ability to provide almost all services in the satellite industry to customers worldwide. Additionally, the combined entity was able to reap the benefits of economies of scale by eliminating common overheads, streamlining processes and rationalizing marketing expenses.

By consolidating companies, investors can potentially increase their returns by selling the bigger entity at higher multiples than they originally bought the parts.

Invest in Future Growth Areas
Private equity players can also infuse further capital into the acquired firm or use internal accruals to fund the firm’s capital expenditures for long-term growth and expansion. Although...
With the pool of suitable candidates in developed countries drying up, private equity firms will have to **consider moving towards emerging markets.**

Private equity players can benefit significantly by supporting the growth plans of acquired firms, coupled with strategies like cost-cutting, operational improvement and consolidation.

**Strategic Course Correction**

At times, to turn around the fortunes of the acquired company, a private equity player may need to correct the course of its strategic direction set by predecessors. This needs extensive industry expertise and foresight of evolving dynamics of consumer behavior, industry competition and regulatory changes. But, if implemented correctly, the benefits can be huge.

Consider the case of Netherlands-based mobile operator Telfort. In 2003, Telfort was making losses and was sold to Greenfield Capital Partners, a private equity firm, for €25m. The private equity firm redirected Telfort’s strategy and started offering low-cost wholesale services in addition to its retail mobile services using two distinct business units. The increased focus on wholesale services made Telfort very successful in attracting MVNOs18 to its network. As a result, its total subscriber base increased and it became profitable within a couple of years. In turn, incumbent KPN felt pressure from MVNOs that launched price-competition offensives backed by Telfort’s low wholesale prices. Faced with falling average revenues per user and increased customer churn, KPN decided to buy Telfort for nearly €1bn in June 2005, thereby generating significant value for the private equity firm.

**Challenges to Private Equity Firms**

Given the attractive returns on private equity investments, it’s unsurprising that large amounts of funds are being channeled into this asset class. With increased liquidity at their disposal, more and more private equity firms are pursuing buy-out targets. However, the increased activity in this space is giving rise to numerous challenges in terms of acquiring the right target, at the right price and generating adequate returns.

**Competition**

Private equity players face competition not only from each other but also from industry players. For example, in 2005 both France Telecom and Telefónica had to battle it out with private equity players to acquire Amena and Cesky Telecom respectively. Therefore, with multiple suitors pursuing a common target, a bidding war or a price-auction often

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17 The private equity consortium that bought VNU comprised AlpInvest, Blackstone, Carlyle, Hellman & Friedman, KKR and Thomas H. Lee Partners. 18 MVNO: Mobile Virtual Network Operator.
ensues, driving the selling price to very high levels. This can make it very difficult to generate returns of 15–20% on investments.

The increased levels of competition can also accelerate the buy-out activity and leave very few good acquisition targets on the table. With the pool of suitable candidates in developed markets drying up, private equity firms will have to consider moving towards emerging markets, which will throw up further challenges of identifying appropriate targets and due diligence. Private equity players who get their foot in the door first are likely to benefit from attractive valuations by selling them to industry players when they want to move in. For example, in India, private equity firm Warburg Pincus spent approximately $300m (over 1999–2001) financing mobile operator Bharti’s growth through the acquisition and expansion of existing properties. By 2005, Warburg Pincus was able to exit Bharti for more than $1.9bn by selling its shares on stock exchanges and to a strategic investor (Vodafone). A similar story may unfold in coming years with Providence Equity Partners recently securing a 12.7% stake in Indian mobile operator Idea Cellular through a $400m commitment.

Clearly, some private equity firms are ahead of others regarding investing in emerging markets; the rest may have to follow soon or risk being left with less attractive targets.

Depth of Sectoral Knowledge
To create value post-transaction, private equity players need to understand the industry dynamics in order to meaningfully set a new strategic course and drive operational restructuring. This is especially true for the telecom and media markets, given that substantial sector knowledge is required to grapple with complex regulatory, technological and operational challenges.

Moreover, the sector is at a very crucial juncture with the phenomena of convergence, digitized communication and changes in media consumption patterns potentially altering the industry landscape dramatically. Consider for instance the emergence of WiFi mesh networks and WiMAX, which have the potential to change the competitive landscape in the wireless industry. Similarly, in the media space, the growing proliferation of user-generated and Internet-distributed content may disrupt the traditional media players’ established revenue streams. Betting on the right future technologies, services and business models will be critical for growth. Partnering with industry experts would help private equity firms take the right course of action and create significant value from their investments.

Other Challenges
Private equity players must take steps to minimize resistance to their acquisition activities, be it from employee unions or government regulations. Some private equity firms have been trying to encourage employee buy-in by offering equity. For example, in 2005 Onex, a Toronto-based private equity firm, bought some of Boeing’s loss-making plants. Onex realized that it had to make tough decisions on employee headcount and wages over the short-term, but secured employee and union co-operation by offering stock in the new company and promised future salary increases. In little over a year, Onex had made the company profitable and also increased headcount. In November 2005, Onex took the company public and employees reaped the rewards through capital gains.

Private equity firms can also benefit by involving and working with employee unions right from the start of the bid, once the need for...
organization restructuring is clear. For example, in a recent bid for US car
maker Chrysler, rival private equity players Cerberus, Blackstone and
others involved union officials from the beginning. The union was made
aware of the issues facing Chrysler and the need to make difficult
decisions including reducing
Chrysler's billions of dollars of
pension and healthcare liabilities,
which had been a drag on profit.
Consequently, the union offered
complete support to the winning bid
of Cerberus and the private equity
firm can now expect employees'
support in turning the company's
fortunes around.  

Conclusion
The dramatic recovery of private
equity investments in the telecom and
media sector over the past few years
will continue strongly. Although
private equity activities dropped
following the economic downturn in
2000, the number of mega-deals,
including large-sized buy-outs, agreed
in the last couple of years indicates
that serious private equity investments
are chasing telecom and media
businesses.

Some very large deals may well be on
the horizon, especially following the
renewed focus on fixed-mobile
convergence and domestic as well as
pan-European consolidation in the
face of intense competition. Moreover,
telecom companies in the US and
Europe are flush with cash and have
started looking at high-growth
emerging markets to deploy their
funds. This interest is likely to drive
private equity players to look at
international acquisitions to get in the
game early.

Similarly, in the media sector, the de-
coupling of the distribution and
content business is also making it
necessary for traditional print and
broadcast companies to gain online
presence and scale. This will drive
private equity companies to buy large
media players to partake in the value
created from future growth prospects
as well as acquire the new breed of
firms who bring in new technologies,
business models and new
content services.

However, given the rapidly changing
telecom and media environment,
driven by new consumer behavior as
well as technology developments,
investing in the right targets and the
appropriate strategy can be
challenging. Private equity investors
must develop sector knowledge and
ally with domain experts to make the
right bets and implement the right
approach to value creation.

Stanislas Pilot is the Leader of
Capgemini's TME Private Equity
Practice. Stanislas has more than 10
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Prior to joining the Lab, Priya worked
for a mobile operator where she helped
launch voice and data products for
the Enterprise market. She is based
in Mumbai.
Strategizing in an Uncertain World

Continuously challenge preconceived ideas ...

“[Television] won't be able to hold on to any market it captures after the first 6 months. People will soon get tired of staring at a plywood box every night.” – Darryl Zanuck, movie producer, 20th Century Fox, 1946

“Transmission of documents via telephone wires is possible in principle, but the apparatus required is so expensive that it will never become a practical proposition.” – Dennis Gabor, British physicist and author of Inventing the Future, 1962

“Remote shopping, while entirely feasible, will flop—because women like to get out of the house, like to handle merchandise, like to be able to change their minds.” – Time, 1966, in one sentence writing off e-commerce long before anyone had ever heard of it

“The popularity of email was not foreseen by the ARPANET’s planners. Roberts had not included electronic mail in the original blueprint for the network. In fact, in 1967 he had called the ability to send messages between users ‘not an important motivation for a network of scientific computers.’” – J Abbate, Inventing the Internet, 1999

The iPod: One of the “Top Five Worst Tech Gifts” to get for Christmas in 2001. – TechTarget poll, 2001

Gain deeper understanding of usage trends...

In China, the average time spent per gamer per week on online games is 11 hours, compared with a mere 2 hours in the UK. – CNNIC Survey

In South Korea, active mobile TV users spend nearly 1.5 hours per day viewing TV on their mobiles. – Capgemini analysis

Around 50% of YouTube’s audience is in the 35–64 age group. – AC Nielsen

The percentage of visitors on Second Life, an interactive virtual world, between the ages 18 and 34 actually decreased, with the 18 to 24 range dropping a full 7%. Instead, big increases are being seen in the 45+ age bracket, with visitors aged 45 to 54 increasing by 3% and visitors over 55 increasing by about 10%. – http://blog.ipglab.com/index.php?tag=second_life

A new study from a research team at Nottingham Trent University in the UK that polled 7,000 online gamers found that one out of nine players studied showed at least three of the symptoms of addiction as defined by the World Health Organization, including craving, withdrawal symptoms, loss of control and neglect of other activities. – http://www.fiercegamebiz.com/story/study-one-in-nine-mmo-players-are-addicts/2006-11-29

Take action ...

During Bill Clinton’s entire 8-year presidency, he only sent two e-mails. One was to John Glenn when he was aboard the space shuttle, and the other was a test of the email system. – CNN, 28 January 2004

Tony Blair has taken a giant leap into cyberspace—by using the YouTube website to congratulate France’s new leader Nicolas Sarkozy on his poll win. – BBC, 7 May 2007
“Consumers EXPECT PREMIUM CONTENT to be free and are happy to watch ads.”

— Peter Bazalgette, Chief Creative Officer, Endemol