
Navigating in a Sea of Connectivity

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Hans Vestberg Takes Over at Ericsson

It was mid-February 2010. Hans Vestberg had just addressed the Mobile World Congress (MWC) in Barcelona—his first time as the CEO and President of Ericsson. Just about 45 days before, he had taken over as the CEO at an important juncture not only for Ericsson as a telecommunication company but for the larger industry as a whole. The traditional telecom industry was evolving from traditionally focusing on voice and data on handheld devices to becoming a part of multibillion devices connected on internet protocol (IP) networks impacting several important sectors such as automotive, healthcare, logistics, education, media and entertainment and others. At the same time, Ericsson itself was in the midst of profound shifts in its business operations in terms of product/service portfolio (with over 40% of revenue from services) and geographical coverage with strong leadership position in established markets such as USA (10% of 2009 sales) and emerging markets such as China (9%) and India (7%).

Hans Vestberg's first speech as the CEO of Ericsson emphasized the significant growth potential of mobile broadband during MWC at Barcelona. His tone was upbeat: "Mobile broadband has moved from being nice to have in our world, to being a necessity. We used to decide when to go online, but now we decide when we should go offline. That desire, to be always connected, plus lower prices of smartphones, affordable laptops and netbooks gives our industry a huge opportunity for growth."

This upbeat tone was consistent with what he wrote as the incoming CEO in the 2009 Annual Report to Shareholders:

"It is now 2010 and we have a new decade ahead of us. A decade of new opportunities and new challenges. Telecoms is no longer about voice only. We do not just connect places and people. We also connect machines and devices. We connect the developing world to the developed world, rural areas to urban areas. Telecoms is the nervous system of the world.

In Ericsson we have a vision for this new decade—that there will be 50 billion connected devices. We will connect people with, for example, heart problems to remote monitoring systems so they can stay in the comfort of their homes, and we will connect our cars and

trucks to smart road systems for safer driving and better fuel economy. Broadband networks will be the backbone of our smart cities, where homes will be connected so we can monitor and manage power consumption.

In this world the challenge will lie in dealing with the complexity of connecting all these devices. And we cannot fail. Patients must be able to rely on their health monitoring services. Transport companies must be sure that they can minimize gas consumption by smart routing and up-to-date traffic information.

In this sea of connectivity we take the role of navigator. We must support our customers and show them the way. This will require us to always put our customers first. Always have the best competence and drive innovation throughout the customer relationship.



Our business is about both technology and services. We have to be consultants; we have to be able to develop complex network management systems; we have to be able to integrate systems and solutions from many different suppliers and vendors. In addition, we should be able to deliver the best revenue management solutions and multimedia applications the consumers have ever seen. Everything must be based on IP software.

This new decade requires a lot from us. We will have to change our ways of working. Our success will be determined by our ability to see beyond technology, stay ahead of our customers and solve problems before they even arise.”

As Hans Vestberg assumed leadership in 2010, Ericsson’s vision of an all-communicating world was rapidly becoming a reality. The convergence of the telecom, mobile internet and media sectors is gaining traction and momentum. The telecom industry is evolving from having connected some 1.5 billion places to networking more than 5 billion people and 50 billion devices during this decade. It is conceivable that anything that can benefit from being connected will be networked through IP-based wireless communications as the *Internet of Things* takes shape in the coming decade.

The Decade of Mobile Internet

At the end of 2009, Morgan Stanley analyst Mary Meeker released a comprehensive [report](#) on the shifts underway in the mobile internet sector. Specifically, she highlighted that more people will connect to the internet through mobile devices than desktop devices within the next five years and that the mobile internet will ramp up faster than desktop internet and will be bigger than what most people think because of five converging forces: 3G, social networking, video, VoIP, and impressive mobile devices. Two other trends in the report are also important and compelling for Ericsson: (1) rapid emergence of game-changing communications and commerce platforms at the intersection of social networking and mobile technology; and (2) massive data growth through new devices compelling telecom operators to manage their transitions in equipment and technology (from 2G to 3G to LTE). Apple with its iPhone, iPod Touch and app stores had created the spark for the mobile internet analogous to what Microsoft did with Windows OS for the PC and Netscape did with browser for the desktop internet. So, many signs point to the second decade of the 21st century being defined by mobile internet.





While Hans Vestberg was convinced of the potential for the industry and the company, he was aware of the transformation requirements at Ericsson. If telecoms indeed become the nervous system of the world in terms of how we live, work and play, Ericsson would need to adapt and evolve from hardware-centricity (2G & 3G) to software-focus (3G & LTE). Moreover, the transformation will be not only in technology but also in business models. Ericsson's business model will change and so will the business models of its key customers—telecom operators—as they battle new demands from their customers and face new competitive challenges from others.

A key part of Ericsson's ability to successfully navigate in the sea of connectivity involves advising and guiding the operators to make the shift away from their traditional business models rooted in voice calls.

Ericsson's success over the next decade will critically depend on its ability to co-create new business models with operators as the industry recognizes the value opportunity created by connecting multibillion devices through mobile broadband network.

Ericsson in 2010

2010 also marked an important milestone not just for Mr. Vestberg but Ericsson as a company. It ended 2009 with more sales on the 3G networks than sales on 2G (traditional GSM) networks, which have been around since 1991. At the same time, the network architecture is evolving towards 4G or LTE. Ericsson had already signed important contracts with operators around the world having more than 240 million subscribers. Despite the global financial crisis and reduced capital investments by telecom operators worldwide, Ericsson had fared better than its direct competitors and appeared well positioned for the second decade. It had acquired CDMA and LTE assets from Nortel and [operating margins](#) improved to about 12%—industry's best in class. However, Hans Vestberg was acutely aware that this was no time to be complacent.

As he flew out of Barcelona, Hans Vestberg focused on the decade ahead. Winning in the sea of connectivity requires simultaneous focus on technology evolution and shifting business models. Transformation of technology from 3G to 4G (LTE) is not enough to capture a greater share of the value potential with 50 billion connections on the mobile broadband network. He was pleased with the progress that Ericsson had achieved in the technology domain. It already had 42Mb in commercial networks and [demonstrated](#) test speed of 1Gb/sec at MWC, Barcelona. Ericsson would continue to be an integral player in technology evolution without compromising technology leadership. In Barcelona, he was unequivocal: "We will continue to invest in R&D... to stay number one. We have decided that."

In Barcelona, he emphasized the importance of innovations in business models. "The business models are going to change... going forward. This is because the main part of business has been voice for our customers and it's going to be much more data. And we need to think how we're going



to charge for that. There's a big difference between an e-Reader that you use now and then and a phone that is going to be on all the time, or a PC that you have a dongle on. Of course, it's going to be much more about business models. But I think the most important thing when it comes to business models is of course the cooperation between different players in the industry. There has been a lot between vendors and operators, but of course there are going to be other industries involved as well. And together, we're going to create an industry that is even more exciting in the next decade."



Business model innovation will require Vestberg's attention more than any other single theme. This is because it is about formulating the rules of engagement in the creation and capture of value with an entirely different set of



devices—beyond phones—on the network. The broader competitive mobile internet sector has new 'non-traditional' companies intent on framing new rules of engagement and new modes of value capture. Apple and Google—hardly traditional players in the core telecom industry at the turn of the 21st century—have innovated new business models to challenge telecom leaders. Apple has captured the dominant mindshare in the industry with its

innovative new products (iPhone, iPod Touch and iPad) supported by its vibrant [App store](#) with around 140,000 applications. Google is leveraging its [Android](#) operating system to position itself as a dominant force in [mobile advertising](#) and experimenting with [Google Voice](#). Furthermore, Cisco is a formidable [company](#) in the evolving mobile internet sector with its emphasis on the 'human network.'

Winning Business Models in a Sea of Connectivity

As Vestberg left Barcelona, he made note of key areas that could shape winning business models in the sea of connectivity. He is convinced that telecom operators should view Ericsson not just as an integrator of technical systems but as a trusted strategic advisor and business partner. And that belief has never been more important and timely given the inflection point faced by the industry. Trusted advising shifts the engagement agenda with the operators away from operational and technical issues to ways to adapt their business models for the converging, all-communicating IP world. In other words, Ericsson could demonstrate industry leadership and innovation through distinct thought leadership. Moreover, these business models should also recognize the inevitable trends in cloud computing and communication. Although cloud-based business models are presently in their infancy, they could take center stage as more devices get connected on the mobile broadband network.

Ericsson's role as a trusted strategic advisor to telecom operators depends on how the following *three* issues interact to impact and influence the emerging telecom and mobile internet sector. How could Ericsson advise the operators as they co-evolve their business models for the decade ahead?

1. Fee Structure

The telecom industry had a fee structure reflecting tiers of minutes for voice calls plus additional data charges (typically a flat-fee) for email and SMS. For most operators, voice is still 70-80% of revenue, which could be cannibalized by voice over IP (VoIP) on the mobile broadband. The proliferation of smartphones has changed the usage patterns—for example, in terms of percentage of time spent, a typical US cell phone user spends 70% of time on voice calls while a typical iPhone user spends 45% of time on voice calls. This shift in usage patterns challenges the attractiveness of a fixed fee (all-you-can-consume) structure for the telecom operators. While consumers understand the simplicity of a fixed-fee structure, the operators face the risks of accelerating levels of network use (even by a minority of users) without a corresponding increase in revenue. In the absence of increasing fees for more bandwidth use, the network operators may be unwilling to make the investments to upgrade their networks.

Fixed fee pricing models also create the perception that operators are ‘dumb-pipe’ providers without the ability to capture value that might be created by connecting multibillion devices to the network. For example, how might operators capture value from communications underlying automobiles connected to the intelligent transportation network? How could data communication in the energy grid with smart meters create new sources of revenue for the operators? Operators are just beginning to think about alternative fee structures based on time and usage as well as prepaid and post-paid alternatives (here’s one recent [opinion](#)) for mobile broadband connections.



How could Ericsson help operators formulate and implement pricing models that are appropriate for increased acceptance and adoption of smartphones and other devices connected on the mobile broadband network—especially through the evolution from 3G to 4G (LTE)? There are key differences between e-Readers (e.g., Amazon Kindle with Whispersnet) that require mobile data connections intermittently, netbooks connected with dongles that may be switched on and off depending on use, and smartphones that are always connected to the mobile network. Taking such differences into account, some operators have embarked on invisible (indirect) pricing as in the case of e-Readers. Consumers

do not pay separately for wireless connections as the price of e-books includes digital download through mobile networks (as in the case of Amazon [Whispernet](#) service). And the fee structure will undoubtedly vary across regions of the world. How operators price their services with different patterns of connectivity for the different types of devices will drive their profitability and influence Ericsson's success.

2. Role of "App Stores"

App stores have emerged as the new battleground in the mobile internet. Apple is the clear leader at present with its app stores serving applications that can be used on three devices (iPhone, iPod Touch and iPad). Google's Android [market](#) serves up applications for Android-powered devices. Microsoft's [Windows phone](#) has its own marketplace and these apps could potentially be designed to work across multiple devices such as Zune and Xbox. Nokia has its own Ovi [store](#) and Blackberry has its own [app world](#). Applications and app stores will evolve in the coming decade as different players in the telecom sector jockey for an app-driven advantage.

Telecom operators are nervously watching the brutal competitive battle between the different app stores competing in the market whose size is estimated to be about \$17 billion by 2012. In addition to the direct sales of apps, the apps could be the catalyst for new ways to monetize in mobile internet. Some operators have jumped on the apps bandwagon. Vodafone has its app [store](#), Verizon has its entertainment and apps [store](#), T-Mobile has an apps store that is co-branded with Android for [now](#) in the USA, and others have announced their own intentions to launch app stores.

Device manufacturers—not to be left behind—have also launched their own app stores. Samsung has its [set](#) of apps for mobile phones, LG has [one](#)—albeit not globally and HTC has [one](#) for its Hero phones.

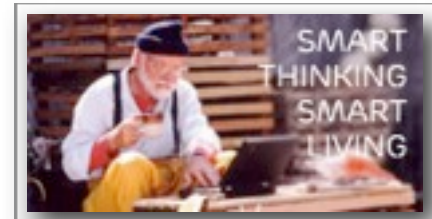
Ericsson joined the app store frenzy with the [announcement](#) of its own app store at MWC in Barcelona on February 15. This is intended to help telecom operators deliver end-consumer value, and is not necessarily tied to specific handset vendors (including Sony-Ericsson). This [eStore](#) is a hosted platform where the applications, developed by third-party software players, can be used by any mobile device, regardless of make or operating system ([video-link](#)). At the same time, a wide range of operators, handset manufacturers and others have joined together to embark on an [open](#) global platform and marketplace for mobile applications ([video-link](#)).

Apps and App stores may well be a critical component of the evolving business models to monetize value in the mobile internet space. How should Ericsson think about the role of app stores as part of the business model innovations? Is it an integral part of the evolving end-to-end solutions that Ericsson offer its customers? What are Ericsson's distinctive advantages in the apps space relative to others?

The logo for ESTORE, with the word "ESTORE" in a stylized, multi-colored font (blue, purple, red) on a light background.

3. Dynamics of Mobile Broadband Service Ecosystem

Mobile broadband ecosystems are evolving beyond hardware and software providers. Telecom operators have historically worked closely with network providers (Ericsson, Nokia Siemens, Alcatel-Lucent and Huawei) and handset makers (LG, Motorola, Samsung etc.). The shape of the mobile broadband ecosystem is evolving beyond hardware-software interoperability such as the open handset [alliance](#) to include companies delivering a set of complementary services.



New companies are targeting service delivery in the telecom sector. IBM's big push into services through their 'smarter planet' initiative has targeted the telecom sector. Tagged as 'smarter telecom,' IBM is seeking to [assist](#) and guide different entities to adapt their business models with a point of [view](#) that is similar to Ericsson's views on Smart Thinking, Smart Living (showcased in the 2009 Annual [Report](#).) The mobile broadband ecosystem will evolve with complex patterns of competitive and cooperative interactions with a wider set of companies than before. Accenture has its suite of [services](#) for the telecom sector, as does [McKinsey](#)—the global management consulting company, and others. And, as multiple types of connections accelerate in sectors such as energy and healthcare, service providers in related sectors such as [GE](#) with its focus on healthcare, energy and security, could logically be part of the service delivery ecosystem. Moreover, this ecosystem will have to recognize the growing [global](#) importance of social networks such as [Facebook](#) and [Twitter](#)



The metaphor of sea of connectivity that Hans Vestberg invoked in his letter for the 2009 Annual Report is more than technical connectivity. It involves interlinking with complementary partners to deliver business value to customers and consumers (end-users). How will the mobile broadband service ecosystem evolve? Who will orchestrate value creation and capture? What strategic, differential role should Ericsson play in one or more of the alternative mobile broadband ecosystems? What does sea of connectivity look like now and over the next decade from Ericsson's point of view?

Your Task

You have been tasked to analyze the evolution of business models in the mobile internet during this decade. Specifically, you are required to make a presentation to Hans Vestberg that addresses the following three themes:

1. Vision. What in your views should be Ericsson's notion of the sea of connectivity in the next decade? Where could Ericsson differentiate itself as this sea of connectivity shifts from technical interoperability invisible to the end consumers to business models formulated through ecosystems involving telecom operators and others with multiple fee structures and monetization logic? How can Ericsson guide and advise the operators as a trusted partner in



this business model transformation—including the fee structure, the role of app stores and related themes? How could it establish credibility for its thought-leadership vision with industry associations such as the [GSMA](#)?

2. Execution. How should Ericsson execute your proposed vision? Here, focus on one specific operator—such as [AT&T](#), [Vodafone](#), [China Mobile](#) or [Telefonica](#)—operating in a specific regional market in the world—such as Europe, North America, Asia or Latin America. Then, show how Ericsson and the operator can co-evolve the business models for delivering superior services to the customers in that region. This allows you to consider specific regional differences in consumer acceptance and adoption of mobile technology for different sectors such as healthcare, education, media and entertainment, video-games and others. For that specific region and sector, develop specific insights on how new business models drive greater profitability for Ericsson and the telecom operators. This will also allow you to identify specific execution risks that Ericsson and the operators should consider. Ericsson’s business model innovations will recognize these regional differences because of the differential pace and pattern of consumer engagement with mobile broadband with varying propensity to pay for mobile broadband.



3. Impact. In developing your presentation, do not limit yourself to thinking of Ericsson just as a strategic advisor. Think also about how Ericsson’s own business models should change and support new sources of revenue and gain-sharing partnerships. Your analysis will be more persuasive if you could highlight high-level impacts of how your recommended vision and execution will affect Ericsson’s (and the specific chosen telecom operator’s) financial statements in 2015.



Hans Vestberg is looking for your reasoned analysis and approach for Ericsson to lead in this decade of mobility and capture greater share of business value in the coming years. Make realistic assumptions but be prepared to defend them based on data, analysis, insights and intuition.