

# Contact

The best mobile-phone pictures of 2008  
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Business and technology:

## The two faces of innovation

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**CARL-HENRIC SVANBERG, CEO AND PRESIDENT:**

"We cannot always just believe that something can only be done in one way"

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**NAINA SHARMA, ERICSSON MULTIMEDIA TRAINEE PROGRAM:**

"We're completely at home in that chaos"

Page 11



A scenic overlook with a crowd of people. In the foreground, a person in a red dress is jumping. In the background, a cable car is suspended in the air. The scene is set against a clear blue sky.

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New ways of working with software

## Software modeling is the future

pages 26-30

## Innovative thoughts

**T**his issue of Contact is about innovation. An innovation is something people use that causes a social or commercial reorganization – as opposed to an invention, which only requires an idea to have been documented, or that can be something developed for personal use. An innovation is the result – product – of an innovation process, though it does not have to be something you can touch; it can be a service, a philosophy or a new way of doing something.

This is nothing new for us at Ericsson. We constantly work with both inventions and innovations. This was how company founder Lars Magnus Ericsson built up the business, and it remains true today. You only have to walk past the reception at the head office in Stockholm and look at the photographs on the walls and the products in the display cases to follow the company's great innovations over the years.

**There are many** examples there, from the little molded part that Lars Magnus Ericsson came up with to attach a telephone's microphone and earpiece at each end of a handle, thereby creating one unit from the two, a handset, to the AXE exchange, mobile telephony and what we call mobile broadband.

Innovation expert Tim Jones, who recently visited Ericsson in Kista, says you have to look at various factors to determine whether a company is innovative. How does the company's culture and structure support innovation? How many products have been launched and how successful were they? How much has been invested in R&D and the value of the brand? How do the closest competitors view the company in terms of innovation?

Not everything we have come up with over the years – and not everything that looked great on paper – has been a sales success. But we continue to test boundaries, to challenge beliefs that rang true for more than 130 years. We must continue to defend that approach. Innovation brings inspiration. And you get most inspired when you see that our products are selling and changing the world for the better.



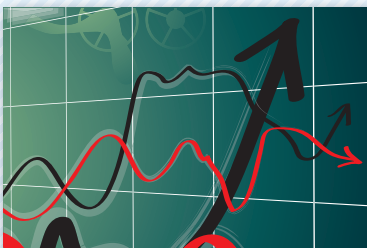
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## Contact

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**Henry Sténson**,  
head of Group Function  
Communications and  
publisher of Contact

## Have your say

E-mail us your questions, opinions, reflections or work-related images. We will publish a selection of the material on this page.

[contact.comments@ericsson.com](mailto:contact.comments@ericsson.com)

### THOUGHTS ABOUT COST SAVINGS

Operational excellence means working smarter while reducing costs. Unfortunately, sometimes the easy way out is to reduce costs even when it affects excellence. We cannot excel if we have cut back too much. This is not only at Ericsson but at businesses worldwide. My suggestion is to focus on areas where cost-consciousness is really needed. We buy

a lot of services and we outsource more and more: everything from fruit baskets to IT tools. Are we really getting the quality we have paid for? In my opinion, tremendous gains can be made in this area. Why does the newly installed multifunction printer have so many problems that it is unusable for days? What about fruit that is not ripe and nobody eats? Or take the logic and functionality of newly acquired IT tools that require many extra hours to do the same task. My suggestion is that we are made aware of what we are paying for and, because we are often the consumer of these services, we make sure that we place as high a demand on our subcontractors as our customers

place on us. There was a time when department secretaries kept an eye on some of these things. Today it is different. I am sure we can decrease our costs by getting the service that we have paid for.

Chak Resh, Sweden

### DIARY

It is time for some articles that highlight a better working environment. This (the diary in the last issue – editor) is the second article that describes inhumane working days. A working day from 8.25am until 00.10am is alarming. It is even more disturbing that the magazine includes no comment about this.

Anders Ripa, Sweden

### Reader's picture



This picture was taken in New Delhi recently when a boy took a "free ride" on a bicycle rickshaw. I took the picture with my w610.

Fatima Pais, India

**ANSWER** The diary is in the magazine to show the various types of work that exist within the company and also to provide an insight into what different employees are doing. It is generally well liked. Its purpose is obviously not to make employees anxious or to signal that "this is how you are expected to work." The diary's content depends on the employees who are interested in participating and what they choose to share with us. Many of those asked would no doubt rather tell us about a day where something out of the ordinary happens than a day when things are very quiet at work and/or nothing of interest happened in their spare time.

Malin Nordén, head of Editorial Channels

### WHICH READERS' PICTURE DO YOU LIKE BEST?

In the new-look Contact we have been publishing several readers' pictures on this page taken by employees with their mobile phone cameras. We now want you to select the picture that you like best. Go to [internal.ericsson.com](http://internal.ericsson.com) and click on the icon "readers' pictures." There you can find all the pictures that have been published during the year. Each is numbered. Choose the picture you like best and e-mail the number to us at [contact.comments@ericsson.com](mailto:contact.comments@ericsson.com). Name the e-mail "Best reader's picture." The winning picture will be published in the February issue of Contact.

The Editor

## Welcome...

PHOTO: MAKSIM KHAKIMOV



### ... Mikhail Byreev, a new Ericsson employee.

After 11 years as an account manager at Siemens and then at Nokia Siemens Networks, Mikhail Byreev started work at Ericsson in Moscow in June. He works as an account manager specializing in fixed networks for Russian operators Comstar and MTS. **What has been your first major challenge?**

"I know the basics of the job, but there are some new inter-

nal routines that I need to get acquainted with. The combination of both coming to a new company and ensuring I have a good knowledge of my customers and their needs has been a major challenge. My focus is now on driving new business opportunities."

**What do you think you will be working on in three years?**

"I expect I will still be in the sales 'cockpit' at Ericsson, but

I think those of us in the sales team also have a wider, more innovative perspective: thinking globally and helping the customer expand its operations. Also, with our ambitious young sales team already running a successful 3G project with MTS, we will be looking for other areas to break into. The wireline business that I'm responsible for is among these."

# Have you been asked...

# ... ABOUT MOBILE DATA SERVICES?

## Traffic-flow analysis

By identifying the data traffic, the operator can make the best use of network resources and gain more satisfied customers.

 = GGSN, SASN\*

Header = Data packet  
Payload

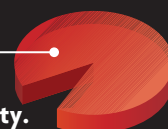
\*GGSN (Gateway GPRS Support Node)  
SASN (Service Aware Support Node)

**1** Subscribers use mobile broadband to gain access to services on the internet. File sharers send and download files (such as films), which generate large amounts of data traffic.

**3** Information about the type and amount of traffic per subscriber is sent to Service Aware Policy Control (SAPC), which manages the share of resources between different services and subscribers in the GGSN.

**10%** of subscribers are file sharers...

...who use **80%** of the capacity.



## THE PROBLEM

Mobile data services demand a certain transfer speed. Support for mobile broadband is one prerequisite, but in many cases file sharers use an excessive amount of network capacity.

Since operators introduced fixed monthly fees, traffic has increased considerably. If the capacity is expanded, it is important that resources can be used to serve new subscribers and ensure the quality of data services.

## ... AND THE SOLUTION

To automatically identify the type of data traffic that is generated in the network. All data traffic is sent as packets. A node in the core network inspects these and reads the origin, destination and type of application. Resources are then allocated according to the data services' needs, and certain traffic can be prioritized.

## ADVANTAGES

The data services work better, which leads to more subscribers as well as to more satisfied ones. Operators avoid oversizing their network and can limit the tariffs related to the internet.

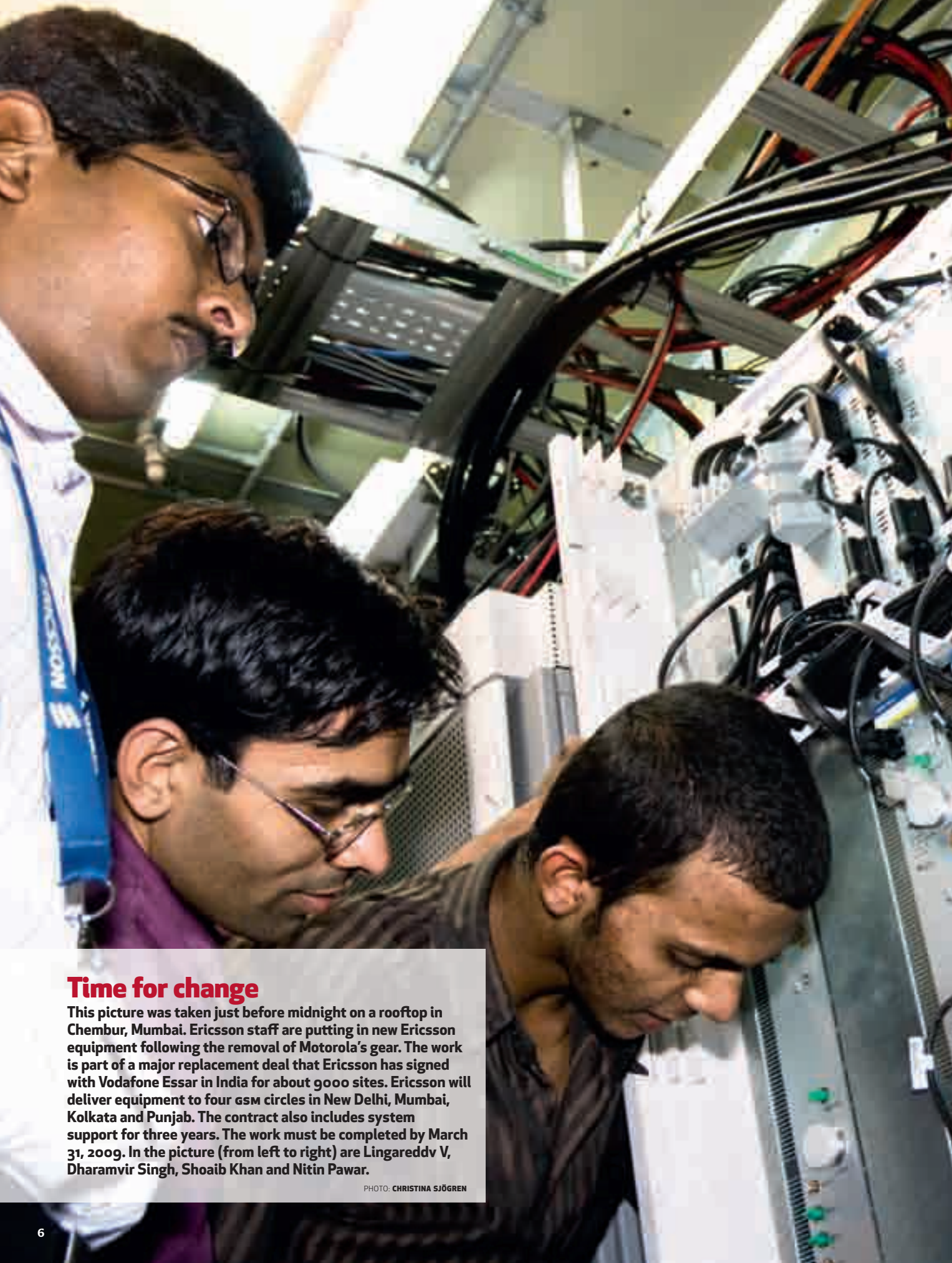
Operators can also introduce a fair-usage policy. The fixed monthly fee applies to a certain amount of data traffic, which basically only sets a limit on file sharing. When there is heavy traffic, the operator can allocate fewer resources to subscribers who have exceeded the limit and offer them an increased quota for an extra fee.

Ericsson's Service-Aware Charging and Control (SACC) solution has been installed in more than 40 mobile networks around the world.

☒ Lars Cederquist

Svenska grafikbyrå





## Time for change

This picture was taken just before midnight on a rooftop in Chembur, Mumbai. Ericsson staff are putting in new Ericsson equipment following the removal of Motorola's gear. The work is part of a major replacement deal that Ericsson has signed with Vodafone Essar in India for about 9000 sites. Ericsson will deliver equipment to four GSM circles in New Delhi, Mumbai, Kolkata and Punjab. The contract also includes system support for three years. The work must be completed by March 31, 2009. In the picture (from left to right) are Lingareddv V, Dharamvir Singh, Shoaib Khan and Nitin Pawar.

PHOTO: CHRISTINA SJÖGREN

**11:24pm / October 25 / Mumbai, India**





## On the road again

**INFLUENCE** This Ericsson truck, loaded with demos, has been traveling around Europe, displaying Ericsson's wide technological repertoire. One stop was in Brussels, the headquarters of the European Union, where Ericsson's representatives took the opportunity to talk to politicians, civil servants and public interest groups, and communicated the company's messages on stimulating broadband investment, television regulation and the need for balanced legislation around Fiber-to-the-Home.

## Now we are "cyber sick"

**INTERNET** Health information on the internet is giving rise to a generation of "cyberchondriacs," people who, without reason, believe they have contracted serious illnesses after surfing health-related sites on the internet, according to a survey by Microsoft. The searches often led to increased fears because search words for simple symptoms, such as headaches, often led people to sites that described serious, though much less common, illnesses.

23

...thousand patents have been registered by Ericsson.

# The flexible office

**Daniel Schiena is a service engineer at Ericsson in Melbourne, Australia. One year ago his department changed over to a "multiflex" office.**

**WORKPLACE** "We work with both service and delivery, and that is why the number of people



**Helena Hambræus**



**Daniel Schiena**

in the office changes all the time," Schiena says. "Often, more than half of us are out on customer projects, and so we don't need a desk. We introduced multiflexing to best utilize our space."

Schienna says that multiflexing works best when there are a lot of people at the office: that is, when all the office space is being actively used, and people are changing places every day.

"I think it's an ad-

## This is multiflex

In a multiflex office, people do not have fixed work stations, but rather share a reduced number of desks. Space is organized, however, in such a way that there is no lack of workspace. Each individual gets his own cabinet. Work stations are adjustable, functional and ergonomic. In the general office area, there are meeting rooms, common meeting areas, a fax and copy room, telephone rooms and hot desks, which are spaces for those who just need somewhere to work temporarily.



PHOTO: ERICSSON

Multiflex means all the office space is being actively used, and people are changing places every day.

vantage to change places often," Schiena says. "It means I work next to different people all the

time, and I get to know my colleagues better. Our office policy includes taking into account

people who need to work in a quiet area. It works well if everyone agrees and follows the policy."

Helena Hambræus, who is in charge of Workplace Design at Ericsson, says that an internal study revealed that approximately half of all desks in Ericsson offices are unused. This is not just because people are sick, working from home or spending time with customers, but also because people are increasingly working in meeting rooms and common areas around the office. The response to this involved creating offices with fewer desks in favor of better utilized shared spaces.

"We are not looking at the workplace in terms of just the desk at which we sit, but at the possibilities for working around the entire office. Multiflex is about creating flexible options for each individual," Hambræus says.

▣ Erik Milles

## Theater support wins award

**RECOGNITION** The Swedish Arts and Business Award for 2008 has gone to Ericsson, supermarket-chain ICA and Glada Hudik-teatern, a theater company from the small Swedish town of Hudiksvall, for their joint project - a musical about Elvis Presley.

What makes the musical special is that it is performed by an ensemble that includes individuals with intellectual disabilities. More than 80,000 people have seen the show so far.

Ericsson's CEO and President Carl-Henric Svanberg, who has seen the performance several times, says: "Our commitment is to spreading [theater manager] Pär Johansson's leadership philosophy. His belief that every human being, regardless of circumstances, can work with others to achieve common goals, fits well with Ericsson's values."

▣ Lars-Magnus Kihlström

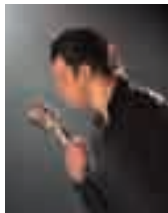


PHOTO: PER TRANE

## NEW CONTRACTS

► **Scandinavia.** Ericsson and 3 Scandinavia have signed a contract to upgrade the operator's HSPA network to 21Mbps downlink speeds. This will raise mobile broadband speeds in Scandinavia to a new level by dramatically improving quality and capacity.

► **Australia.** Ericsson has supplied Telstra with the world's first mobile soft-switch using blade technology. The operator has already brought the new msc Server Blade Cluster into commercial service on its Next G network. The Mobile Switching Center (msc) Server is the main

node in a mobile-core network used to control the switching of voice traffic.

► **UK.** Ericsson will manage the operations for T-Mobile's and 3 UK's consolidated 3G radio-access network. This four-year managed services contract has been signed with the companies' Mobile Broadband Network Limited joint venture.

► **Australia.** Ericsson and Telstra have achieved an industry first: the successful activation of HSPA Evolution functionality capable of peak network speeds up to 21Mbps into the Telstra Next G commercial network.





PHOTO: PERNILLE TOFTE

Olof Lundström is running the Adboard project in China: "I checked with my boss and got a positive response."

## INNOVATOR'S DREAM CAME TRUE

**It all started with a fascination with the internet and a belief that everyone should be able to come up with good ideas. Now Olof Lundström is driving the "Adboard" prototype project in China.**

**COMPETENCE** Two years ago, the Ericsson researcher studied market trends and got the idea for an intelligent digital bulletin board with text-matching, for the PC and mobile. It started as a spare-time hobby project together with two non-Ericsson friends from Mexico and Singapore. They used tools such as Skype, MSN and Yahoo Groups to create the unique core of the service.

"At first we thought this was nothing for

Ericsson, just for the internet, but then the market changed and I checked with my boss and got a positive response," Lundström says. "We started a project within Ericsson Research in 2007, recruited three people, drew up a project plan and did a market study of China and Sweden, with students as our target group."

### Valuable

Before going external they conducted an alpha test at Ericsson Research, where some 60 people tested the concept.

"This was extremely valuable for us," Lundström says. "We not only corrected some bugs but most im-

portant, we got attention and help from our colleagues."

The next step was an external two-month beta test in China at the Beijing University of Posts and Telecommunications. The Chinese text-matching differed a lot from the English one. And, in China many students do not have laptops, so the service depends more on mobile phones and SMS.

"In China we attracted 700-800 users, which

gave us good feedback," Lundström says. "We also realized the potential of local adaptations and the commercial aspects."

Lundström concludes: "An innovator must be bold. People with new ideas must confront the critics as soon as possible. You must dare to test your ideas with your colleagues when you still are on the slideshow stage, long before there is a real product."

✉ Lars Cederquist

### Adboard works like this

Adboard is a digital advertising bulletin board using an intelligent matching engine developed by Ericsson Research. Advertisers will be able to create and publish their ads on Adboard. The system then automatically matches their ads with the needs of the consumers who use the system. The consumer can reach the advertisers via telephone, SMS or e-mail.

## A question of weather

**SCOTLAND** IT company Alchemy Plus plans to open a new computer complex in Inverness, Scotland. The center, which is aimed at individuals and companies, will offer an alternative to storing data on individual PCs. Material can instead be delivered over the internet, and the user can log in from anywhere to access it. The company selected Inverness due to its cold weather. This will help cool the center's computers, which generate large amounts of heat. The waste energy will be used to heat nearby buildings, BBC News writes.

## Mobile shopping

**PILOT PROJECT** Pay-Buy-Mobile could exist within two years, if the GSM Association's hopes come to fruition, writes Swedish tech newspaper Metro Teknik. The idea is that, instead of swiping your credit card in a reader, you hold up your mobile phone in front of it. Transactions can be made through a chip installed in the phone that enables the transfer of funds. A pilot project is in progress in 10 countries.

## Nokia prepares phone for China

**COOPERATION** At a mobile conference in Macau, Nokia announced it would produce a mobile phone that works with the Chinese 3G standard. Nokia's new phone, which will be constructed around the Symbian/S60 operating system, will go on sale at the end of 2009 and will also work in the usual GSM networks, writes Sweden's Svenska Dagbladet.

## Hello...



### ...Rui Yamagami,

a designer at Sony Ericsson since 2004, who helped design the Xperia X1 smartphone, which was released in October.

**You previously designed TV sets and video recorders. How is it different to design mobile phones?**

You keep your mobile phone much closer to you. It's probably one of the few products that consumers keep at such close proximity for such a significant part of the day, and this affects the design significantly.

**What is the concept behind the design of the X1?**

We have tried to design an experience, and in order to do this, we needed to observe people, see how they interact and see what makes them who they are. We wanted to bring users a different experience as well as better functionality.

**Do you see any design trend?**

The trend is towards devices that can provide appropriate content services or functionality exactly when you need it. For example, if you listen to a particular song by a particular artist a lot, your music player will remember that and put it in your "Top 10." In the future, your device will know your location and tell you if that artist is playing a concert near you.

**What is your dream assignment?**

Brainstorming design ideas on a Caribbean island for at least three months.

☒ Cia Kilander

# Best mobile photos of 2008

**COMPETITION** Marriane Nill from the Philippines has won first prize in Sony Ericsson's camera phone photography competition, World View 2008. The third annual competition received more than 64,000 entries from 27 countries.

The jury felt that the winning entry entitled "Peace" was a "success on every level," "spontaneous" and "humorous." The picture was taken just a few hours after Nill's godson was born.

"He tried to stretch while we took pictures of him," Nill says. "Suddenly his fingers formed a peace sign."

In joint second place came "Switching a Bulb" by Minghui Li from China and "Going Upstairs" by Riemer Dekker from the Netherlands.

## We want your pictures

Contact knows that many Ericsson employees are enthusiastic photographers. Send your pictures to: [Contact.comments@ericsson.com](mailto:Contact.comments@ericsson.com) with a short comment about the photo. The best pictures will be published on page 4.



No. 1



## Eriday - a star-studded evening in India

**PARTY** Stage fright? Hardly. The stage was filled with employees with stars in their eyes when Ericsson in India had its annual Eriday family party, with the theme "A Night of Stars." A total of 2000 employees and family members came along to



PHOTO: ERICSSON

enjoy themselves, with good food and drink, daredevil acrobatics, and South African music and dance all on offer. Market Unit head Gowton Achaibar and his predecessor Mats Granryd addressed the enthusiastic Ericsson India team.

PHOTO: JIM GAUSFORD, JEFF GENDALL



## Alan Slater, a true champion

**SPORT** Forget quiet walks in the forest. Adrenalin rushes and the smell of burning rubber are what makes Alan Slater, head of Network Solutions in the UK, really happy. He discovered he had a talent for motor racing many years ago. And he recently received confirmation that he had fine-tuned his racing form when he won the Melton Concrete Products Formula Ford racing championship. That meant that a long-held dream finally came true.

**Has your passion for racing influenced your job in any way?**

"I think the racing has helped me keep a sense of balance and perspective in my role. It constantly challenges you in a way that tests your purpose and focus on what is important."

☒ Cia Kilander, Lindsey Morgan

# AGENTS FOR CHANGE

They are young, eager and fast. They are set to change Ericsson's attitude and approach to multimedia.

Naina Sharma is one of 17 recruits taking part in Ericsson's Multimedia Trainee Program 2008.

**MULTIMEDIA** "The trainee program is a quick and effective way for us to get into the company," says Sharma, who works for Ericsson in India. "What we learn in this 18-month course would normally take us five to 10 years in an organization."

Ericsson's youngest business area, Multimedia, is its fastest growing, and the trainee program is part of an effort to strengthen multimedia within the organization. The hope is that, in three years, more than half of the program's participants will have positions within the company that contribute towards Ericsson's leading position in the multimedia market.

"There is a need for new thinking, greater creativity and media orientation," says Linda Schang, who is responsible for the program. She uses the term "turbo introduction" when she talks of how the course gives participants the opportunity to enter the organization quickly and bring new ideas.

Sharma says the change that Ericsson wants to put in place has more to do with attitudes and culture than a lack of competence.

"Multimedia is so unpredictable," she says. "There are technologies that are functioning today but that will be



Daniil Metelkin from Russia, top left, together with Francisca Merhán Higuera, Spain, Ahmed AlKady, Egypt, Erik Almgren, Sweden, Naina Sharma, India, and Sumyee Cheung, Australia.

entirely wiped out by new ones tomorrow. Progress is fast and the area demands that people can adapt to quick changes and understand chaos. We're completely at home in that chaos; we've grown up with it."

**What will you be doing in the program?**

"One of our biggest challenges as trainees in the program is to loosen up opposition to change in the organization. You could say we are agents for change. But my

experience so far is that those who have listened to us actually like our ideas."

**What about change from a larger perspective?**

"It would be interesting to examine business

models that are not just concentrated on the services you can offer the end user, but are about what they can add to a person's life, at a price they can afford."

☒ Cia Kilander

## Multimedia Trainee Program

- ▶ **Start:** March 2008.
- ▶ **End:** September 2009.
- ▶ **Average age:** 25.
- ▶ **Nationalities:** Participants come from 13 countries.
- ▶ **Languages:** They speak a total of 12 languages.
- ▶ **Participants:** 17

PHOTO: PERNILLE TOFTE



## Norway best for equality

**GENDER** The World Economic Forum's Gender Gap Index examines sexual equality in different countries. In its latest report, examining 130 countries, these were the top 10 places:

1. Norway
2. Finland
3. Sweden
4. Iceland
5. New Zealand
6. The Philippines
7. Denmark
8. Ireland
9. The Netherlands
10. Latvia

7...percent per year is how much mobile phone sales will increase worldwide up to 2013, according to analysts Informa. If the forecast comes true, it means up to 200 billion will be spent on mobile phones up to 2013.



## Web makes you smarter

**THINKING FAST** You can keep your brain in trim if you search for information on the internet and write text messages. Those who do these things make quicker decisions and can more easily filter out unnecessary information, new research from the University of California in the US shows.

## Ericsson a hit with students

**JOBS** Ericsson is the most popular company to work for among engineering students in Sweden, according to a recent survey by personnel-marketing firm Trendence. In its European Student Barometer, 90,000 students at 550 universities in 20 European countries were

asked which employer they thought was the most attractive to work with.

### ▼ THE LIST OF SWEDISH STUDENTS' PREFERENCES

1. Ericsson
2. Apple
3. Ikea
4. Microsoft
5. Volvo
6. ABB
7. Sony

## Internet in the countryside

**TECHNOLOGY** About 10 percent of the EU's rural population lacks broadband access.

The EU Commission wants to change that with a new proposal, which will guarantee all households and companies in the EU a capacity of 1-2Mbps for internet communication, writes Swedish magazine Telekom idag.

The commission hopes the decision will be implemented by 2010.



There will be 4 billion mobile phone subscriptions in the world at the end of the year, according to Informa.

# Simple idea the best

**Innovation is about looking beyond the obvious in search of completely new ideas. But the winners of this year's DU Radio Innovation Competition know that sometimes one does not have to look very far.**

**WINNERS** John Power and Michael Murtagh's colleagues at Product Development Unit OSS in Athlone, Ireland, were surprised that the engineers' submission was chosen



John Power



Michael Murtagh

as the winning idea out of more than 400 entries in the "Wild and Brave" category of the competition.

It seemed that their innovation, OSS Squared – a concept that would bring operators into Ericsson's open source community – wasn't wild or brave at all.

"The first thing we wrote in our presentation slides was that the best ideas are simple," says Power. "When people found out we had won,



OSS Squared means Ericsson would tout an entirely new way of working, bringing the company even closer to its customers.

they were shocked that they hadn't thought of the idea themselves – it seemed so obvious."

What is brave about the idea, says Murtagh, is the fact that it represents a change that is not only technical, but also cultural – adopting OSS Squared means Ericsson would tout an entirely new way of working, bringing the company even closer to its customers.

Today, the two innovators are working together

with Group Function Technology and Ericsson Technology Board with the aim of presenting the idea to operators at a customer forum in February. The goal is

to make this "wild and brave" idea part of DU Radio's day-to-day work, and an accepted idea within the open source community.

▣ Kathy Kuc

## Three other competitions

DU Radio is not the only unit that holds innovation competitions. Here are some others:

- ▶ **Växthus IMS Innovation Challenge** – John Wiå and Stefan Pernler submitted the winning entry out of 131 entries.
- ▶ **Software Research Innovation Call** – Winners not yet announced.
- ▶ **DMMP Prototype** – Winner will be announced December 3, out of 224 entries.

## Torvalds tops list as world's greatest geek

**GENIUSES** The brains behind the most prominent inventions rarely end up in the spotlight. But UK technology website vnunet.com wants to change that. Here is its list of top 10 geeks:



1. Linus Torvalds, inventor of the Linux computer operating system.
2. Steve Wozniak, developer of the first Apple products.
3. Sir Tim Berners-Lee, one of the developers of the internet.
4. Seymour Cray, the man behind the supercomputer.
5. Marc Andreessen, developer of Mosaic, the first web browser for a mass market.
6. Grace Hopper, who developed a compiler during the Second

World War that translated text to computer code.

7. Jack Kilby and Robert Noyce, who both invented the integrated circuit.
8. Alan Turing, one of the founding fathers of computer technology.
9. Richard Stallman, who further developed free software and the open source movement.
10. Paul Allen, who together with Bill Gates built up Microsoft.

PHOTO: INA AGENCY PRESS, PERNILLE TOFTJE



One important element of project sales is to build partnerships with the customer.

## Project sales help build partnerships

**Customers are constantly demanding more complex solutions. Ericsson's answer to this is a new way of working. Market Unit Nordic & Baltics (MU NOBA) is the first to use "project sales."**



Thomas Kinnman

A close dialog with customers will also help Ericsson clarify the content of its deliveries and

become better at estimating costs and risks.

One effect of project sales is that parts of a solution can come from other vendors.

"Depending on the customer's existing systems, we can sometimes recommend solutions with components from partners. And in the long run, we gain from acting as a holistic supplier," Kinnman says.

One challenge with project sales is the rights issue. Can Ericsson provide a solution developed in cooperation with one customer to another,

perhaps competing, customer?

"You must use your instinct here, but we are working hard to keep the intellectual property rights," Kinnman says. "Solutions to which we own the rights are placed in our global knowledge database, which has been created so we can easily reuse everything from tenders and ways of working to pure software codes."

Hanna Ljungberg, in charge of introducing project sales at MU NOBA, says: "In mature markets such as NOBA, the customers have largely rolled out their networks and are now looking for add-on services. This places demands not only on our way of selling and for Ericsson to offer a broader portfolio, but we must

also change our relationship with the customer."

She says that one important element of project sales therefore is to build partnerships with the customer – on all levels and with all departments.

☒ Tomas Eriksson

### How to succeed ...in project sales

1. Put yourself in the customer's situation and create added value, such as increasing revenues or reducing costs for the customer.
2. Ensure profitability in the project by letting its scope, risks and other contract conditions guide the price. Add-on sales increase profitability.
3. Share knowledge with colleagues.

## Hello...



PHOTO: LARS CEDERQUIST

**...Peter Mottishaw,** analyst at Analysys Mason, who is an expert on Operations Support Systems (oss).

### What's happening in oss?

It is an area of growing importance. Now, when fixed and mobile broadband services are migrating to IP, it makes the networks more complex, and integration and network management are key issues.

### Who are the best?

Three providers are the indisputable network management system leaders: Ericsson, which currently has a clear advantage over the rest, Alcatel-Lucent (ALU) and Nokia Siemens Networks (NSN). They have around 61 percent of this market. Well behind the top three are Huawei and Cisco.

### Who is good at what?

In the network management area Ericsson is No. 1 and its position is even stronger in the mobile part. Cisco is the leader in the business services area and ALU in oss for residential broadband networks. Ericsson has done a very good job with its oss Radio-Core solution, which manages multiple networks from a single platform.

### Any problems for the competitors?

NSN must combine two different product lines with separate oss systems. That will be a big challenge. ALU has the CDMA product line to combine with GSM and WCDMA. In residential broadband ALU has done an excellent job. Huawei is growing very fast and is definitely a threat to Ericsson.

☒ Lars Cederquist

## "MORRO" GIVES PROTECTION

**VIRUS** Microsoft believes that far too few users protect their computers from viruses and other harmful programs. The company therefore

intends to produce its own solution, which will be free for consumers. The plan is for the protection package named "Morro" to be released to

users during the second half of 2009.



# 3 HAVE THEIR SAY

What are your most important sustainability targets for next year?

► **Cesare Avenia, head of Market Unit South East Europe.**



"Gain Sustainability Leadership is a strategic program for

2009 in our region. We aim to position Ericsson as the sustainability partner and influence governments to use communication to meet sustainability targets. Internally, we aim to reduce our operations' environmental footprint. Our teleworking project benefits the personal balance and the environment."

► **Jacqueline Hey, head of Market Unit Australia and New Zealand.**



"Sustainability is an integral part of our strategy for

2009-2012. We have three targets: to work closely with our biggest customers to cut emissions and be cost-effective; to create an internal baseline for the unit's environmental impact; and, by lobbying, create a position of influence for the telecom sector as part of the solution to climate change."

► **Angel Ruiz, head of Market Unit North America.**



"We want to create network solutions that maximize

energy efficiency and cut costs. We want to show our customers, as well as authorities, how innovative mobile applications help reduce carbon-dioxide emissions."

☒ Staffan J Thorsell

## ONE DAY WITH GUNILLA SOLHEIM

# "A storm is on its way, and we have 200 guests"



**Being responsible for customer events at the Volvo Ocean Race's stopovers is not only a logistical challenge. It can also be a battle against the weather, as Gunilla Solheim discovered in Cape Town.**

**07:15** The alarm on my mobile phone rings. My colleague Kristina Bergström and I are going jogging. When you are out for such a long time at each stopover, you have to take care of your body. For me, the best thing is jogging before breakfast.

**10:00** I arrive at Ericsson's customer pavilion. This evening, we will host a "thank you" party for the entire Ericsson Racing Team, about 200 people. Suddenly, a group appears without a reservation, and they want a meeting room. We book them in.

**10:30** A meeting with Giles Vincent, who is head of Marketing & Communication within Market Unit South East Asia. We talk about the stopover in Singapore.

**12:00** A steering-group meeting begins, led by Richard Brisius. We go through the week's customer program and what is happening on the sailing front.

**12:45** Lunch. Today it is homemade hamburgers and, as always, fresh fruit – melons, pineapples and strawberries. Good food does wonders for your spirits.



PHOTO: GUNAR STENERT

Solheim has to balance meticulous planning and a complete change of schedule.

**13:30** Back at the pavilion, Sweden's TV4 is waiting. They are going to do the morning news from our pavilion for a few days while we have our most important customer visits. Thorough planning is required.

**15:00** We go through the week's work schedule and update our Event site on the intranet. I am interrupted occasionally with questions about things such as food deliveries, someone going to fetch clothes, meeting someone, and so on...

**17:00** It is getting a bit windy. A storm is on its way, and the plan is to have 200 guests sitting outside for a barbecue and buffet...

**18:00** The first guests arrive – a group of 70 people who are first going to have a special presentation inside the pavilion's big seminar room.

**18:45** It is very windy, and we tie down the tablecloths extra tight. I hope we can cope with the worst of the weather during dinner.

**19:00** The sailors and shore crew arrive with their families.

**19:30** The party begins; it is slightly cold but the atmosphere is great. The wind does not stop things from going ahead as planned.

**23:00** I leave the pavilion. My colleague Sarah Persson supervises as we finish. The weather forecast says very strong winds for the next few days. We have to find alternative solutions and not get downhearted...

☒ As told to Jenz Nilsson

## This is Gunilla Solheim

- **Name:** Gunilla Solheim
- **Title:** Event project manager
- **Years at Ericsson:** 15
- **Lives:** Stockholm, Sweden
- **Family:** partner, two daughters
- **Hidden talent:** Good at jogging before breakfast

### Gunilla prefers:

- |                       |                        |
|-----------------------|------------------------|
| City                  | ✓ <b>Countryside</b>   |
| ✓ <b>Team sport</b>   | Individual sport       |
| Book                  | ✓ <b>Morning paper</b> |
| ✓ <b>Evening home</b> | Evening out            |
| Cinema                | ✓ <b>DVD</b>           |

PHOTO: ARCHIVE



## A favorite with many names

**LOOKING BACK** There is a Swedish expression that “a beloved child has many names,” something that rings true with Ericsson’s classic Dachshund telephone from 1892. It was a success around the world, and its unusual appearance led to many nicknames. In Denmark, for example, it was the “Sewing Machine,” in the UK the “Skeleton,” and in Italy the “Spider.” Russian Czar Nicholas II was so fond of the phone that he ordered 10 for himself and his family. The model was decorated in gold and ivory with a braided cord in the white, blue and red of the Russian flag.

In 1894, the Dachshund became a part of Ericsson’s first registered trademark and was included on stationery until 1982. More than 2 million of them were manufactured up until the 1930s.

✉ Cia Kilander



PHOTO: INAGENCY

## The party’s over

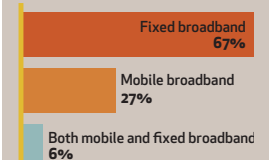
**BAH HUMBUG** The social demands of office Christmas parties drive almost one in three British office workers away from the annual get-together. According to a study by the British Greyhound Racing Board, where 1000 employees answered questions about staff Christmas parties, seven out of 10 replied that they prefer to skip the office party because it involves being around colleagues with whom the office workers believe they have nothing in common, apart from their jobs.

## Fixed “set to stay on top”

**WIRELESS** Forrester Research released a study that contradicts the mobile industry’s prediction that mobile broadband connections in Europe could overshadow fixed within five years.

The firm said that despite its forecast for growth in mobile broadband, factors that will keep it from displacing fixed broadband include performance, weak indoor coverage and the high rate of desktop computers that do not have wireless connections.

### ▼ PREDICTION FOR 2013



## “It’s the best job in the world. I could do it for free. But don’t tell Steve Ballmer.”

Anders Vinberg of Microsoft’s management team in Swedish technology magazine Ny Teknik

## COMPETE AND WIN A PRIZE

**CONTEST** How carefully do you read Contact? The answers to the three questions below can be found in this issue of the magazine.

1. What is the Xperia X1?
2. Who says: “However, the question is whether we’ll be innovative enough in what will come?”
3. The MSIP programs are run within which business area?

**Write your** answer to each question, put “competition” in the subject field, and

e-mail your entry to [contact.comments@ericsson.com](mailto:contact.comments@ericsson.com) by January 19. The winner will receive a luxury Ericsson Racing Team beach towel. If we have several correct answers, the winning entry will be drawn from a hat.

**The winner** of the last competition was Abu Amar, Indonesia.

**Answers to** last month’s quiz:

1. Thomas Sandell
2. National Museum of Science & Technology in Stockholm
3. Job shadowing

## What was happening this time...

### ...25 years ago

**1983** Malaysia became the 12th country to adopt mobile telephony when Ericsson received an order for a countrywide mobile-phone system at the start of the year. As well as base stations, the order included AXE exchanges and 600 mobile phones. The base stations were made in Gävle and the mobile phones in Kumla, both in Sweden.

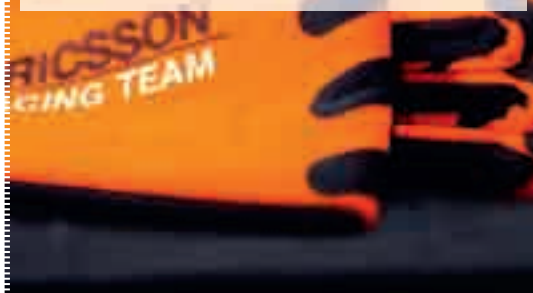
### ...10 years ago


**1998** The 12th GSM World Congress was held in Cannes and attracted a record 9000 visitors. Ericsson presented a new 19kg pico base station, which took just 20 minutes to assemble.

### ...5 years ago

**2003** Ericsson and France Telecom signed a contract to develop IP-multimedia services for end users in both mobile and fixed networks.

• Analysts’ expectations were exceeded when Ericsson’s results for the fourth quarter of 2003 were presented – the company made twice the profit the equity market had anticipated.



A man in a dark suit, white shirt, and striped tie, wearing glasses, is smiling and looking towards the camera. He is standing in a modern office space with large windows and colorful pendant lights. The background is slightly blurred, showing a multi-story building structure with blue and red accents.

“When we start talking about innovation and creativity, the conversations are usually very interesting”


Magnus Wester



# INNOVATION

Is it mere coincidence that corporate leaders around the world are talking more and more about innovation? Hardly. Being seen as innovative is **more important** than ever. And one thing is certain: it is not just about technology. It is also about business.

## Creative souls

 **One helps build LTE, the other provides new business ideas. One gets his ideas interacting with colleagues, the other when he is going to bed. Erik Dahlman is an engineer and radio guru; Magnus Wester is an internal entrepreneur and multimedia expert. Both are innovators.**

STOCKHOLM  
SWEDEN, EUROPE

**S**eizo Onoe has a reputation for coming up with big, unexpected ideas. So the mere fact that the R&D strategist was one of NTT DoCoMo's representatives in the "Paris" conference room in Kista in April 2004 gave the meeting an extra buzz.

The topic for discussion was 4G, paving the way for an academic, forward-looking discussion between the Japanese operator's people and representatives from Ericsson's research department.

Onoe turned to Ericsson Research's

Erik Dahlman and said something that immediately justified his reputation: "4G demands new spectrum and we can't wait for that. We need something quickly."



Erik Dahlman

For Dahlman, time stood still before his brain confirmed what his ears had just heard.

"I was exhilarated," he recalls. "For me as a researcher, something obviously this big sounded great, and it could also become something quickly. The second thought that struck me was that we hadn't even started selling HSPA – was it a good idea to have something new? The whole situation felt ... exciting."

**LTE was born** there and then. Dahlman talked to his managers and Ericsson's technology supremo Jan Uddenfeldt, who said: "Go for it!" Dahlman and ►



It is important to write down your thoughts and ideas, says Erik Dahlman, one of the key figures behind HSPA and LTE.

## Did you know...

...that Idea-Boxes are on the way? Using this internal idea-management tool, to be launched next year, employees can share ideas with all Ericsson colleagues. You can also comment, grade and build on ideas from others, and get in contact with internal innovation managers.

## “We need to have a bit more of a cowboy spirit again” Magnus Wester

► his colleagues at Ericsson Research started working out radio algorithms and applying for patents for their ideas. After six months, they proposed the foundations for a new mobile standard and began selling their ideas to standardization organ 3GPP.

We now know that the first commercial LTE system will probably come into operation in 2010.

*Are you an inventor?*

“No, I wouldn’t call myself that because then you think of (Disney character) Gyro Gearloose. I feel like an innovator.”

*What is an innovator?*

“For me, it’s someone who has new technical solutions to an existing problem. The problem doesn’t have to be new, but the solution must be. Like with DoCoMo and LTE: they had a

problem, we found the solution.”

*How do you find the ideas to solve problems?*

“They rarely hit me in the shower,” Dahlman says with a smile. “A few of us often sit down in a room and scribble on a whiteboard. It’s totally informal; we have a cup of coffee or tea and talk about technical problems we have to solve. It’s important to sit down and get everything down on paper; otherwise you forget it. In meetings, we complement each other’s thoughts so we don’t miss anything. Developing systems requires teamwork. A group of innovative people finds solutions to specific problems and puts together the solutions as one unit.”

**There is always** a notepad on Magnus Wester’s bedside table. That is because

he often gets ideas just as he is about to fall asleep. In fact, Wester always has a notepad with him – you never know when an idea will pop up. It happens often, which is a good thing when an important part of your job is finding new business opportunities. He works at Business Unit Multimedia’s Business Innovation department, but when he is at a party and someone asks him what he does, he usually says he is an innovator.

“I then often get an amused ‘So have you innovated anything today?’ as a follow-up question,” he says. “But when we start talking about innovation and creativity, the conversations are usually very interesting.”

Innovation is about releasing your inner entrepreneur, he says: coming up with an idea, selling it to decision-

## Did you know ...

... that Ericsson defines innovation as an idea that creates value? The idea can be new and revolutionary, partly new or a combination of previous ideas. An innovation could be a technical solution, a product, a process, a business model or something else.

makers and then making it happen. He has contributed to several new multimedia concepts, such as the Community Toolkit, the Volvo Ocean Race portal and application hosting.

**Much of Wester's** inspiration comes from the internet, where much of today's innovation within communication services is taking place. Other sources of inspiration include partnerships outside traditional telecoms, trends, and what the competition and companies in other industries are doing.

"Our department has been looking closely at how communication can be improved moving towards Web 2.0, and how Ericsson and operators can play a role in that," he says.

*Give an example of what Ericsson can do.*

"There are already players that have started integrating communications with the internet, such as TokBox and Nimbuzz. They have widgets for communication that you can easily put onto websites. It's happening now. The question is whether Ericsson can act quickly and secure a leading role in internet communications, with the chance of using IMS in a new way. Or will that be Google or another company?"

**Dahlman and Wester** give innovation within Ericsson a face, and show its many dimensions. Dahlman, one of the principal characters in the development of all 3G technologies and with a list of patents as thick as a phone-book, personifies how Ericsson traditionally works with innovation. Some

of Ericsson's 600 research engineers and 17,000 development engineers put their clever heads together and improve or update systems or products. This is where Ericsson's greatness has come from over the years.

Wester illustrates the importance of considering what people want technology for – which services can attract you and me. It is about taking an idea and creating something new by combining existing technology and information. The innovation itself is really just a new use for something that is already there. Things that makes us think, "Why didn't I think of that?"

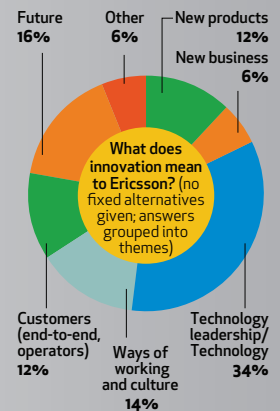
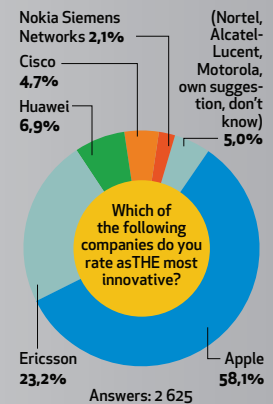
**Innovation today** is about more than technology leadership, says Håkan Österberg at Group Function Strategy & Operational Excellence, vice president for New Business Development & Innovation.

"Our technology leadership is vastly important, but the customers also want help finding new business models, tips on good services and ideas for making money from new technology," he says. "We can become better here. They often select us for our technology leadership, but also want us to help them create value from it. Innovation is also important for us in improving and inventing new professional services."

Innovation in its broader sense has become increasingly important to Ericsson and its customers. The reason for this is the future: the telecom, IT, media and internet industries are converging to a point where everything and everyone is communicating, where multimedia services are increasingly

## EMPLOYEES HAVE THEIR SAY

Ericsson employees were asked questions on innovation in a intranet web poll, including which company they regard as the most innovative one (from a list of suggestions.)



## RESEARCH FOR THE FUTURE

Ericsson Research has identified eight areas where a lot is expected to happen in the years ahead. All demand a lot of technological development. And we have only scratched the surface so far, says Jan Färjh, head of Research.

- 1. Devices everywhere:** More people are communicating with each other using more devices. Devices are also communicating with each other to a larger extent. This places demands on the networks and requires many new applications.
- 2. Everything shared:** With increased memory capacity you can save more; with improved graphics it's more fun to show others.
- 3. Next 3 billion users:** Services, networks and applications are being developed based on the needs of people in developing

countries. The mobile phone has a major role as an internet device.

- 4. High integrity:** New applications, increased sharing, financial transactions and the transfer of work material are placing increasing demands on secure solutions.
- 5. Simplicity:** Interfaces are becoming more intuitive and it is becoming easy for users to set up, use and remove new applications and services (which do not have to be inside the device). It is also easier to introduce them to networks, and then adjust and remove them.

- 6. Everyday interaction:** The mobile phone is becoming central to moving information between devices, both from one side of the planet to the other, and between the mobile phone, computer and tv at home.
- 7. Unlimited performance:** Capacity in radio networks, fixed-access networks, nodes, devices, transport networks and core networks is increasing many times over. Large screens get wireless access and fiber networks are being spread around the world.
- 8. Sustainability:** Advanced technology is helping to reduce the environmental impact.

## “They often select us for our technology leadership, but also want us to help them create value from it”

Håkan Österberg

### Did you know...

...that Ericsson has opened the door for open innovation at labs.ericsson.com, an internet portal for multimedia development. The portal is aimed primarily at external developers, who can launch ideas for new services and applications. It makes Ericsson code and tools available, and developers can spread their own code.

► important to people in their everyday lives. In that same future, systems and service operations are not Ericsson’s only source of income and traditional telephone operators are not the only customers. This future is described in Ericsson’s study, *Communicating Worlds 2020*.



Håkan Österberg

Ericsson must be – and be seen as – innovative in a greater number of areas and by more people and companies. This shows the outside world that it knows what is happening in terms of trends and that it has the ability to capture new growth opportunities for customers and itself. Innovative companies also attract talented employees and investors, and the latter have a positive effect on the share price. Quite simply, innovative companies are the companies of the future.

Innovation also has an internal dimension, Österberg stresses. Smart thinking can reduce costs and increase effectiveness, for example through improved work processes, knowledge-sharing and the way units cooperate globally. Taking all this into account, the conclusion is clear: “Innovation has always been important to us, and now is even more so,” Österberg says.

**The million-dollar question**, then, is how can Ericsson broaden itself in terms of innovation. Wester says all companies must support innovation to be successful. But this is a problem

for many large companies whose processes are often structured to improve what exists rather than support truly new ideas. Another problem for large companies, Wester says, is that they invest in major projects that must be guaranteed to bring huge revenues, instead of allowing small attempts and then investing in those that show potential.

He thinks Ericsson has been too satisfied for far too long with improving only what it knows. These improvements are obviously good, but “we must be brave enough to go outside our comfort zone” to find new opportunities for growth, he says.

“We must dare to dream more,” he says. “And we need to have a bit more of a cowboy spirit again. Look at all the power we had in Ericsson during the IT boom years. We’re still selling many of the concepts we launched then. There was a will to change the world and I want to return to that.”

**The million-dollar answer** is therefore a mental change. There must be managers who encourage innovation, bonus systems for employees, and resources set aside to turn ideas into reality. Innovation will not be a natural part of the culture until then.

Wester is hopeful: “We’ve started changing,” he says. “We have people with ideas who are passionate about them. You just have to encourage them and we’re getting better at that. We work more with partners, prototy-

### WESTER’S TIPS ON HOW TO BECOME AN INNOVATOR

1. Have an open mind and subject yourself to new things. Observe trends, go to trade fairs. Look at companies in other industries; test products and services. Talk to people.
2. Combine new information with your experience. There are technologies to use.
3. Work actively to produce ideas. First, do this yourself, then improve your ideas with others. This creates more and better ideas.
4. Do not be too hard on yourself. Not every idea is good, but the more you come up with, the greater your chance of generating a unique idea.
5. Always have a pen and paper ready. Or use your mobile phone. Ideas can come at any time; you have to write them down at once before you forget them.

pes and business analysis. We have cooperation tools, innovation competitions and are building internal networks. R&D is involved in the business more than ever and we’re holding workshops about innovation with customers.

We seem to have decided to promote innovation – and once Ericsson has decided, we usually get up to speed quickly.”

Text: Jonas Blomqvist Photo: Bodil Bergqvist

## WHAT ARE THE MOST INNOVATIVE THINGS YOUR UNIT IS DOING RIGHT NOW?



Ramchandar Venkatesan, R&D, Finland

“We are building an innovation ecosystem both internally and externally. External partners

include venture capital companies, universities and other companies. One example is a collaboration with Suunto, trialing ‘personal sensor pods’ that send pulse information to our IMS system. This can then be published as presence information.”



Bridget Krott, Global Services, Australia

“It is hard to say. It depends on your perspective. We have 217 innovations and 57 ideas

submitted to date. One good example is a new method of dimensioning HSDPA coverage and capacity, which allows the sales teams to model the performance and capacity benefits of the new P7 functionality.”



Sharon Jheent, Operational Excellence & Innovation, UK

“We have the I-Safe criteria, which we use to shape and validate ideas for the next stage.

We have also introduced a rotating panel of SMEs to provide feedback on ideas at our Eric’s Den – which has been well received. Our development of an idea-management tool to drive innovation, service improvements and Six Sigma ideas is unique within Ericsson.”

Innovation is a natural part of the culture at Magnus Wester's workplace.



»» **Big fan of Lego** »»

# INNOVATION



Tim Jones knows what distinguishes innovative companies. Here he is being interviewed for the intranet TV show, 5minutes.

# The only way to grow



STOCKHOLM  
SWEDEN, EUROPE

**Innovation is a matter of corporate life or death, says expert Tim Jones of Innovaro – a company which has researched the shared success factors others can learn from.**

**A** grown man's passion for LEGO may seem odd, but not when that man is Tim Jones. He is not so much interested in building things from the famous plastic bricks; rather he has a fascination with the Danish company's recent history – a history that illustrates the importance of innovation.

LEGO was a new kind of toy when it was first introduced, developed to entertain children and stimulate creativity. The name translates as “play well,” and LEGO has been named the toy of the 20th century.

But early this decade, the company was almost bankrupt. With computer games all the rage, families had stopped buying LEGO. The company had to act, and it did. “LEGO went online, and just look at what happened,” Jones says. “LEGO quickly saw new communities form, communities of people who cared about LEGO.”

Most famously the company got a group of its hard-core adult fans involved in developing a new genera-

tion of its Mindstorms LEGO robots. It worked and Mindstorms NXT has sold well.

“At the same time, kids can now compete to design the next generation of LEGO products through legofactory.com, and the company has had a huge response,” Jones says. “Giving this level of responsibility to their fan base was an innovative thing to do that other firms outside the sector are now trying to copy.”

**Jones is principal** of Innovaro, a firm specializing in helping companies improve performance from an innovation perspective. LEGO is on Innovaro's list of the current innovation leaders in 25 different industries.

Jones says Innovaro's methodology differs from that of other list makers. Some list innovative companies by asking a group of people, such as corporate executives, what they think; others look at companies' R&D investments.

But Jones says these methods show only part of the truth. Popular lists, such as the magazine Business Week's, are based largely on perceptions and tend to highlight well-known brands. R&D measurements show only what companies invest in technological de-

velopment. Innovation is a broader term, he says, and such lists do not state whether companies are making money as a result of their R&D efforts.

Innovaro's analysis covers more areas, Jones says: whether a company's culture and structure promote innovation; how it has raised innovation to a strategic level; the number of products released and how successful they are; total growth; average turnover and margin per product or customer; R&D investments; brand value; and how innovative its closest competitors consider the company to be.

Innovaro's most recent Innovative Leaders list is here on page 24. Jones says the results show a trend: in each sector the most innovative companies' growth, margins and share prices have increased more than those of their peers.

**It sounds like** innovation is a matter of life and death to companies, and Jones says it is. “Innovation is essential to survival. In a globalized world, it's the only way to grow.”

Innovation is everywhere. It is company-specific, not industry-specific. You can apply the term to many areas, but it is about getting companies to grow by turning ideas into reality. ▶

## FIVE INNOVATIONS TO REMEMBER

Contact reveals some of the Ericsson ideas that have had a major impact on the world:

**1. AXE:** This telephone exchange is one of Ericsson's greatest ever successes. The first to be computer driven and to use digital switching technology, the AXE went into operation in 1976 (though with analog switches; digital ones came in 1978). The AXE was also modular, making it easy to upgrade. The development started

in 1970, with a groundbreaking venture: writing an analysis based on what the company thought the market might want.

**2. Telecom services:** Ericsson was selling products and networks but giving away services such as rollouts and network optimization. Then the company realized it could be paid for these and other services, such as managing networks, system integration and consulting. This led to the creation of Business Unit Global Services,

which now contributes substantially to Ericsson's sales and results. Competitors soon followed.

**3. Digital mobile communication:** Telephony existed, as did digital communication; Ericsson had been involved in developing NMT analog mobile technology. The company was sure it would be big, which is how GSM was born.

**4. Mobile broadband:** 3G existed, but few were using mobile networks for functions other than voice. Ericsson led the

development of HSPA, increasing network speeds. It advocated a new business model: connecting the computer to the mobile network. Data traffic in 3G networks has now started to take off.

**5. Pre-paid:** Ericsson introduced the first real-time mobile pre-paid solution, allowing operators to offer mobile telephony to people who could not afford post-paid subscriptions. Today, 69 percent of the world's users are pre-paid customers.

## “LEGO went online, and just look at what happened. It quickly saw new communities form, communities of people who cared” Tim Jones



PHOTO: ISTOCKPHOTO

**Innovative toy; innovative company.**

► “Where the ideas start doesn’t matter; it is exploiting them which makes the difference,” Jones says.

All this becomes evident when he talks about the companies leading in innovation. Apple is a business-model innovator, for example. Jones mentions how it challenged the music industry with its iTunes digital-music store, and how the iPhone is breaking new ground in the telecom industry – products that are not technically better than others, but which are woven together with services.

Many view Google as a search-engine company; Jones sees it as an advertising agency for which the search engine is the core platform. One innovative feature of Google, Jones says, is the way it launches perpetual beta versions of new services into the full market so that users can continue to give feedback and suggest final tweaks.

Google employees also drive ideas of their own with the company’s consent. The company frees up time and finances their projects. Many of Google’s product releases and upgrades are said to have happened this way.

Fashion retailer H&M distinguishes itself from competitors Gap and Zara with its IT system, which allows stores to have a greater variety of products. Each H&M store is involved in choo-

sing its own product range instead of this being decided centrally.

Starwood owns luxury hotel brands such as St Regis, W and Sheraton. It revolutionized the hotel business with its loyalty program and has continued to be innovative.

“Starwood considered the most important aspect of a hotel stay, and focused on the bed,” Jones says. “They decided to find the best bed possible, but didn’t find one they liked so they designed one themselves. Now you can buy The Heavenly Bed, and many other items from your room in the on-line store. Starwood is now the biggest bed retailer in the US. That’s a nice business on the side.”

Nokia is broadening its business, moving from manufacturing mobile phones to also offering services.

“They’ve started a journey with the aim of making their services business bigger than their product business,” Jones says. “Nokia is using its core business as a foundation and developing new revenue streams around that.”

**Lessons can be** learned from the leading innovative companies. Innovaro highlights common factors among the top 25. One is that they treat innovation as a strategic issue.

“They know where they want to be innovative and some recognize innovation as something involving everyone, not a slice of the company,” Jones says.

As a result, in many cases innovation is decentralized. The support, strategy and guidelines come from central office, but not the control. Those who can see problems and opportunities, and solve them, are out there in the company.

Innovative companies are also happy to partner with others because they know what they are good at and when they should collaborate. They are also good at acting in response to new consumers and market changes.

“And they not only see it, they use it,” Jones says. “If they see a need, they create a product, service or solution for it.”

Jones says these companies have processes and cultures that support

innovativeness, which is measured, encouraged and acknowledged.

**One question that** often arises in the context of innovation is whether companies need to be innovative outside their core businesses. Why not just stick to what you know and improve it?

The danger of being successful in just one area, Jones says, is that others will start challenging you on price and performance. That can lead to tougher times. Today there are few, if any, industries in which a company can feel secure if only focused on its core business.

“It’s not about broadening your business from telecommunications to travel, for instance,” Jones says. “It’s about using what you have and making this a springboard to enter new markets. One example is (consumer-electronics firm) Philips, which has been successful in applying its technical capabilities to healthcare.”

*Ericsson is not on Innovaro’s list. Do you have any advice?*

“Ericsson is innovative in its core business and can clearly grow on that. You have a great technological heritage and significant R&D capabilities, which are well respected. One way to inspire a more innovation-focused culture is to demonstrate all the things you are innovative in and stimulate the great people and potential within the company. There are opportunities for you to be more innovative both within and outside your core business. You have to identify the best options and effectively exploit them.”

Text: Jonas Blomqvist Photo: Stefan Borgius

### Innovative companies

Each year Innovaro lists the innovation leaders in 25 industries (in alphabetical order; no ranking): Adidas, Apple, Aviva, BASF, BMW, Boeing, Canon, Google, Handelsbanken, H&M, Infosys, LEGO, Lilly, Medtronic, Microsoft, Nokia, NTT docomo, PepsiCo, Reckitt Benckiser, Samsung, Shell, Starwood, Tesco, UPS, Virgin Atlantic.



# FEELING INNOVATIVE?

Contact believes that Ericsson employees are all inherently innovative. So why not sit down – by yourself or with others – and come up with an idea? Then present it to your manager, a colleague or a friend. Who knows, your idea could be the start of something that contributes to Ericsson's future success. Here is a piece of paper – it's all you need to get started.

**My idea in brief:**

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**The benefit:**

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**This idea is particularly interesting for this target group:**

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"It's easy to hide a poor construction in handwritten code. In a graphic model you have to expose your analysis to others"

Toni Siljamäki



## SOFTWARE MODELING

# The right model

Ericsson is using a new way of working with software **to deal with competition** from countries such as India and China. Instead of handwritten codes, it is working with visual models that create codes automatically. The work will be more advanced, with a higher level of abstraction, resulting in greater efficiency and shorter lead times.



STOCKHOLM  
SWEDEN, EUROPE

**I**n a little room in Älvsjö, south of Stockholm, sit four men screened off from everyone else. Nothing must disturb them for the next three weeks. Then they will check things off with the customer and return for another three weeks. A graph on the door shows how the project is progressing each day.

The process is called Scrum, and Jiang Wu is the team's Scrum Master. Every morning he has a short meeting with his team. The project is a critical part of the CPP platform, on which 3G nodes are built.

"We would never have managed if we hadn't worked with models and Scrum," he says. "The live project took just three months."

**This is an example** of how Ericsson works with software today, an ever-greater part of its R&D. A small team starts by drawing models on a simple, visual level. The model is then broken down and translated to the code and product required.

Lars Frank, head of Development Unit Platforms, is pleased with the pilot projects that have been done so far.

"They show enormous possibilities," he says. "The method surpasses handwritten code in quality and time, and we're now going into the live project."



Lars Frank

Christer Fryxell, line manager, adds that a test model within CPP testing, which normally takes 1000 hours, has been reduced to between 40 and 50 hours.



Diarmuid Corcoran

This revolution is supported by Ericsson Software Research, where Anders Caspár leads a project that aims to greatly increase efficiency. Software is modeled and reused within some parts of the improvement work and many pilot projects are underway. Software is the cash cow of the future.

Diarmuid Corcoran, an expert in model-based design, says that the old method of working with thousands of pages of documents that are then sent between units and have to be updated, is no good. Now, everything is far more complex.

"We now base things on one source and from those demands create a ▶

# “I want to break the myth that performance worsens if you generate codes automatically” Toni Siljamäki



Toni Siljamäki and Staffan Andersson present model-driven development during Ericsson Research Day. Comparisons show that automatically-generated code performs as well as hand-written code. Model-driven development contributes to higher efficiency and better quality, and also means components can be reused.

► system model that is strictly separated from the end product and independent of platforms and code language,” he says. “We call it the Platform Independent Model (PIM). It is done by a team of experts on the product in question. We use UML language with visual tools for the model.”

This PIM is converted with the help of a model compiler, which with a “translation language” generates and implements the PIM to binary code down to the hardware. When this is done, you have one or more Platform Specific Models (PSM). Ericsson often creates the compiler, which can also be reused with different platforms. Model and compiler development is done at the same time, in close cooperation with system and platform experts.

**The person creating** the compiler must be highly knowledgeable about the product, coding and the modeling language, especially its meta model. One of Ericsson’s experts on compilers is Toni Siljamäki.

“I want to break the myth that performance worsens if you generate codes automatically,” he says. “It makes sense to be skeptical and not believe in everything that’s new, and I was doubtful at first because you want to see the code. But many projects show that the quality and capacity are at least as good and that you solve complex problems far more easily. We save loads of time with this, especially through reusing components across the platforms: it’s in line with Ericsson’s target of having more effective R&D.”

With that in mind, Staffan Andersson at Platforms is managing a project to model License Manager as a PIM. It could be used as a common component in several platforms.

But working with software models does not solve everything. Many areas still require special codes, especially critical real-time systems. Some tools are also missing and you have to be able to simulate and debug at model level. But about 80 percent of Ericsson projects could work in this way.

Software modeling is not only about technology. At Ericsson Research’s Multimedia unit they are working with modeling from other starting points.

Magnus Wilson, program manager, explains that the products largely work towards the end customer’s IT environment.

**“It’s a major problem,”** he says. “There are no standards here and it takes time to find a common language with the customer. For them, the most important thing is handling business models and being flexible because everything changes so quickly. And we have to integrate our products into their systems.”

“To balance customer and market-driven developments, we must describe the demands in another way; see how services are connected to each other and how you go from business systems

to our design models. We’re now running two programs to change our way of working. We’ve already run pilots in Canada, China, the Netherlands and Sweden, but also a pilot according to the new ‘Blue Ocean Engineering’ method, where Ericsson is at the forefront.”

Software modeling is spreading throughout Ericsson, and outside it. There is great interest in colleges, and Ericsson’s Pär Emanuelsson, based in Linköping, Sweden works with them a lot.

**Internally,** he runs the Long Term Modeling Group, 15 people whose goal is to produce a common approach and common methods to work with models.

“We give advice, but not on a detailed level,” he says. “We used to be dependent on the suppliers, but now open software is used as the foundation, which means we can buy tools from different places, including colleges, and combine them.”

Emanuelsson summarizes Ericsson’s strategy by saying it is aimed at finding common terminology to avoid misunderstandings and make it easier for different units to reuse software components. It would save a lot of money, which is becoming more important as the competition gets tougher.

✉ Text: Lars Cederquist Photo: Pernilla Tofte

## SAAB “SOLVES THE IMPOSSIBLE”

Stefan Grufman at Saab Avionics explains how the company solved an “impossible” modeling problem. Lacking the right tools, the team modified some of the chain without breaking the authorities’ tough demands on code generators.

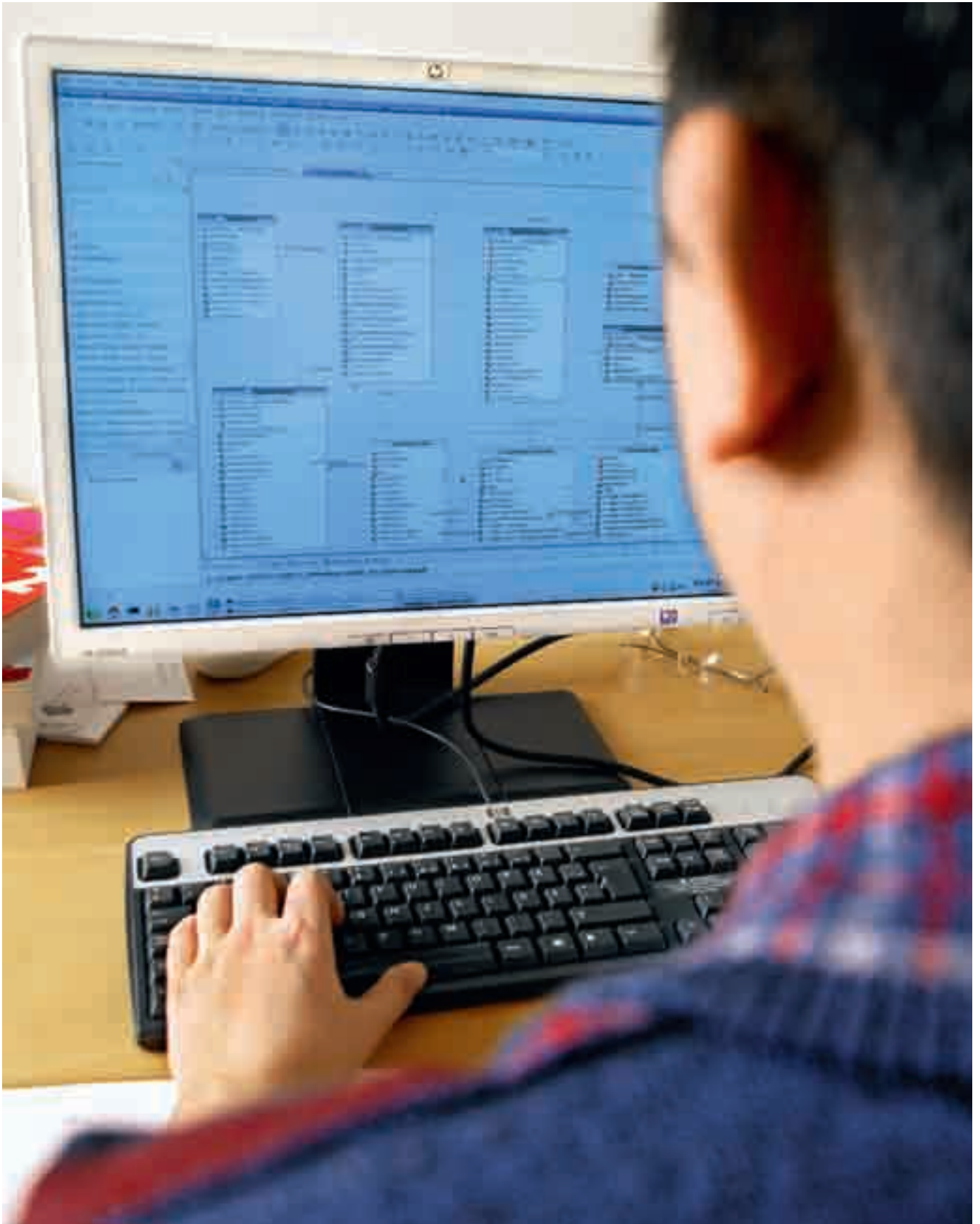
“The work took about six months and we’re planning to introduce this way of working in a live development project for the JAS Gripen fighter plane,” he says.

The company’s Gert Johansson also used modeling successfully on a project for an unmanned airplane at Saab Aeronautics.

“We were working with modeling at systems level in real-time programs,” he says. “Most of the team members were inexperienced, but we had two mentors who produced the model profiles and methodology.”

One important part was training in UML and its application in the project, as well as the knowledge that it would take time before everyone was producing fully.

“We worked very closely with each other in teams, with system and software engineers defining the interfaces in the model,” Johansson says.



Jiang Wu working at his computer with the software program.

»» **Anna identifies the pitfalls** »»

# “It’s often the case that those who are included in a change project do it part time, on the side of ‘more important’ tasks”

Anna Börjesson Sandberg

## Did you know ...

... that in the 1960s and 1970s people coded in assembler coding and C?  
... that in the 1980s they went up a level to Pascal and Ada83?  
... that in the 1990s coding became even more abstract; Java, Adag5, C++ and UML?  
... that Executable UML was used in the 2000s?  
... that each stage has been about 10 times more efficient than the last?



Anna Börjesson Sandberg has identified several areas where software development can be improved.

## “We must become better”

**The new way of working with software development involves major changes. Unsurprisingly, it has not been without hitches.**

**With software modeling** many experienced programmers get new work tasks. This does not happen without friction, although the experiences so far have mainly been positive.

Anna Börjesson Sandberg, senior R&D specialist and researcher within software process improvement, manages different improvement projects within Ericsson R&D. She has identified a number of reasons why

changes are often not carried out in the best way.

“Over the 10 years I’ve been working with this, we have done too little too slowly,” she says. “We must become better, even if an area such as software modeling is very complex. There are no obvious rules on how you do things. Many just blame the tools, while I think we should focus more on the processes.”

**It also seems** to be hard to understand that a change is often about organization and how an area should be prioritized.

“It’s often the case that those who are included in a change project do it part time, on the side of ‘more important’ tasks,” Börjesson Sandberg says. “Often the project is not given enough attention. They also don’t always have a clear picture of what the result should be.”

**Börjesson Sandberg** says that you have to gather the right people in the project and be brave enough to make mistakes when trying something new. You also have to want to share your knowledge. When it comes to a new subject with unclear rules, the manager must be able to handle the situation.

She thinks, however, that there are many examples that show Ericsson is handling this well. For example, the current software-modeling project at Ericsson Software Research has gathered the group’s best people within the area. It is also driving the development of tools, something she also thinks is important.

Text: Lars Cederquist Photo: Bodil Bergqvist

## The most common pitfalls

In a contribution to the IEEE’s Software publication, Ericsson’s Anna Börjesson Sandberg and Lars Mathiassen from Georgia State University have listed four main reasons why improvement projects often go too slowly.

- ▶ Those who participate often have a lot of other things to do and might not come to the meetings
- ▶ Participants are sometimes passive and do not speak up
- ▶ They regularly respond late to e-mails and questions
- ▶ They often think “great... but not right now”

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“We’re likely to be affected by the whole situation”

There is no doubt that much of the world’s economy is in crisis. Many employees are asking how Ericsson will get through the **tough times ahead**, and whether the company has the right strategy. Nobody can answer these questions better than Ericsson President and CEO Carl-Henric Svanberg.

**How do you view 2009, in the light of the latest quarterly report,?**

There is a lot of uncertainty in the financial world. You can roughly divide the world into those who believe the market will drop and those who say they don’t know, but even they are still preparing for it to fall.



**Carl-Henric Svanberg**

**Do you believe that the telecom industry is entering a new crisis?**

The operators are generally financially strong; the networks are reasonably well-utilized, the traffic is increasing and people have learned to appreciate broadband. Things were different when we entered the major telecom crisis: the big operators were heavily in debt, the networks weren’t as tightly run and the traffic was not

increasing as strongly. So an industry like ours should be able to cope reasonably well, especially in comparison with many others. However, there are still operators with debts and there is always the risk that they will feel pressure from the financial market to restrain themselves and act more cautiously. And it is also obvious that if consumers have less money to spend, it will be important to try to reduce their telephone bills, for example. We’re likely to be affected by the financial situation, but we’re certainly not heading for the type of crisis we were in last time.

**In your CEO letter in conjunction with the Q3 report, you wrote about needing to make choices. What kind of choice does Ericsson face?**

As long as we need to make small corrections,

we should always make them. But if you’re going to make bigger savings, you must be prepared to make the kind of clear-cut decisions that we’ve made previously, as with CDMA. We see no such situation ahead of us right now, but you have to respect the currents that we are seeing in the financial sector.

**How will Ericsson become fast enough to make that kind of choice?**

To be fast, you have to understand the situation, accept the situation, sort out the issues and learn to think in new ways. For example, could we do more in terms of working with fewer common platforms? Could we reuse more of our technological development? In that case, we need to cooperate more between our different product areas which today have different platforms. We must address this type of ►







**“We will be affected, but if we handle the situation correctly, we’ll have an opportunity to lay the foundation for an even stronger position in the future”** Carl-Henric Svanberg

► issue more quickly, make the right decisions and make sure we carry them out.

**Do you think Ericsson’s strategy will hold, with the company entering a tougher period?**

Yes, I definitely believe so. Our strategy means securing our mobile leadership while broadening our portfolio and our competence in an all-IP world, and finding ways to help multimedia service providers generate new revenues. I see nothing in the market to suggest we should change that direction.

**Who do you regard as Ericsson’s main competition?**

Right now, it’s our traditional competitors, Alcatel-Lucent and Nokia Siemens Networks, as well as Huawei and ZTE. Alcatel-Lucent is very strong on the fixed side and Nokia Siemens Networks has now come further with its merger. Huawei and ZTE are working hard to establish themselves in the international market. But now, in a tougher market, there are new conditions for everyone, and those who cope best will be the winners. It’s our job to prove that we’re better at dealing with the financial crisis than our competitors are – and we actually have an advantage here from our third quarter last year. Everyone I meet within Ericsson has a

realistic view of the market situation and what we need to do.

**Many still view Ericsson as just a “box” supplier of radio base stations. What can we do about that?**

Different observers see us differently. Obviously, we supply lots of base stations but we’re more of a solutions provider than a supplier of individual boxes. But we’re coming from a position where a typical order for us has meant rolling out a new mobile network, 2G or 3G. We’re entering a time where so much is already installed that you can’t just come in and roll out something completely new. It’s about migrating from existing technology to new technology instead, and every operator is unique. This is a new situation for us, based much more on the customer perspective, with services becoming an increasingly important part of the whole thing.

**Do you think Ericsson is innovative enough?**

Yes, absolutely. After 132 years, we’re still technology leaders and the consensus is that we’ve increased our lead over the past five or six years. However, the question is whether we’ll be innovative enough in the times ahead. Those who have a good understanding of what

the consumer wants, who are acquainted with what technology can achieve and who use that starting point to develop the right things – they can be called innovative.

**What does cost obsession mean to you?**

To defend our leadership and continue to be the fantastic company we are, we must not miss even the smallest of opportunities to work more effectively. I feel we need to shift up a gear and that is why we’re driving cost obsession as hard as we are. But we cannot always just believe that something can only be done in one way. We must constantly be open to new ways of organizing ourselves, what we’re going to do, and where we are going to develop and produce things.

**What is your biggest challenge as CEO in 2009?**

It’s trying to interpret where we’re going, and not underestimating the changes the market might bring. You only have to open a newspaper to see that the crisis is in full bloom all around the world; we would be naïve, then, to believe that we won’t be troubled by it. We will be affected, but if we handle the situation correctly, we’ll have an opportunity to lay the foundation for an even stronger position in the future.

☒ Text: Helena Norrman Illustration: Ebba Berggren



The Dialog telephone is often pictured with a dial. But there were also versions of it with a keypad. Here we see Mrs Madden in Tiffin, Ohio, the US, using her new phone. **She is one of the subscribers who have already received a Dialog phone with a keypad.** The phone was equipped with a keypad because the services that the AXE telephone exchange used at that time needed it. But the exchange was not successful and was replaced by AXE in the mid-1970s.

Photo: Archive

# Mobile Adventures

by Jola Cederschiöld

