

Contact

Pick the best readers' picture
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Paris at the peak

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BRAND POCKET GUIDE



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Contact

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Helena Norrman,
Head of Group Function
Communications

A sustainable future

I **have always loved** Paris for its exciting history, beautiful architecture and wonderful food. On a recent visit, I found another reason to be drawn to it: all the amazing ICT initiatives underway there. Before setting off on my trip, I read with great interest about a couple of the Paris region's latest innovations. A subscription to Autolib', for example, lets residents book an electric car online using a smartphone or computer, and then pick it up or drop it off at a parking station of their choice in central Paris or the suburbs.

The Panammes project is another example. Using several solutions based on positioning technology, it helps visually impaired people find their way around the city more easily. And then there is the Paris Region Lab, which helps companies test their innovations in real urban environments.

With initiatives like these, it's easy to understand why Paris ranks so highly among the world's leading ICT cities. It is also one of the front-runners in our own report, the Ericsson Networked Society City Index.

With the challenges facing almost all the world's cities, I believe the innovative thinking we're seeing in Paris gives it a significant advantage. The planet's urban population is set to expand dramatically in the next 20 years, placing great pressure on the environment, housing and traffic systems. Most urban governments realize this, and are now looking at how to cope.

At Ericsson, we are convinced that innovative ICT solutions will contribute to sustainable city development. In this issue of Contact Magazine, we focus on smart cities and the role Ericsson is playing in their development. Ultimately, the goal is to create a sustainable future for us all.

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

WHICH READER'S PICTURE DO YOU LIKE BEST?

Over the past year, Contact has published several pictures taken by employees with their mobile-phone cameras. Now we want you to select the picture you like best. Go to internal.ericsson.com and click on the "Readers' pictures" icon. You will find all the pictures published during the year there. Select your favorite picture, and e-mail us at: contact.comments@ericsson.com. Please write "best

reader's picture" and the number of your favorite image in the subject field by January 10. The winning photo will be published in the next issue of Contact.

Editorial

FACT FAULT ON PAGE 36

I just wanted to highlight that there was a small mistake in your statement for the third question "Geography, which country?" (issue 3, 2011) about when Tunisia became independent. The exact date is March 20, 1956.

Faouzi Dababi, Saudi Arabia

ANSWER Thanks for pointing that out, and you are correct, of course. We apologize for confusing the year of Tunisia's independence

with the year that the monarchy was abolished in the country.

Editorial

WHY NOT USE QR CODES IN THE MAGAZINE?

I suggest not publishing long URLs in Contact and replacing them with shortened URLs and Quick Response (QR) codes.

Stefano Odaglia, Italy

ANSWER Hello! The QR code is a solution we're looking into, but there are still some technology- and security-related issues that we need to solve before implementing it.

For example we can't access content on our intranet via smartphones.

Editorial

Readers' pictures



I took this picture at 06.30 with my Xperia X10 mini pro on my way to work in Hudiksvall, Sweden. It's a wonderful view of the port and small-boat harbor in Hudiksvall, with the old warehouses in the background.

Tord Toft, Sweden



A rainy day in Lund, Sweden, which I captured on my Sony Ericsson X10.

Jim Svensson, Sweden



Recently I was on my motorcycle on some of the highest roads in the Himalayas. I took the opportunity to snap this picture with my Sony Ericsson J20i. Altogether I traveled 3,500km.

Achal Barla, India

Web poll

55

... percent of 322 Ericsson employees don't think GSM will be a relevant telecom technology in 10 years.

Source: Intranet

Welcome...

PHOTO: GETTY IMAGES



... to Ericsson, Christine Patricia Howard,

who recently started as a Sales Manager at Managed Services, Australia, for Customer Unit NBN Co.

You have previous experience of working at Ericsson, how does it feel to be back?

Between 1998 and 2002, I worked for Ericsson in Australia and the UK. Between 2002 and 2008, I worked at Sony Ericsson in the

UK, and now I am back at Ericsson Australia and it feels great. The company culture is very refreshing and everyone is easy going and friendly.

What excites you about your new role?

We are working on a groundbreaking project in Australia, the National Broadband Network. It is a government funded project that will provide nationwide access to

broadband. Ninety-three percent of the population will be covered by fibre, 3 percent by satellite and 4 percent by Ericsson's LTE solution.

What's a must-see for tourists visiting Melbourne?

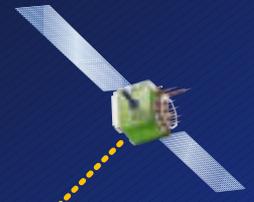
I particularly enjoy the National Gallery of Victoria at Federation Square; its collection of Australian art is stunning.

Have you been asked ...

...ABOUT AUGMENTED REALITY?

Augmented Reality

Augmented reality combines physical reality with information retrieved by software. In recent years, rapid advances in smartphone technology have reduced the costs and expanded the areas in which augmented reality can be applied. To use this service, you need a camera, a screen, the appropriate software and hardware, and usually an internet connection and access to the Global Positioning System (GPS).



3. The buildings are identified, and the software retrieves information about them.

2. The device's position is determined using GPS or a radio network.



Interaction with physical objects

1. The camera is used to film the subject - in this case, buildings.

4. Facts about the buildings are shown on the display.

Other areas of application

Military

Combat pilots and soldiers can view their targets and other facts on their helmet visors.

Games

Everything from mobile games to Kinect for Xbox.

Sport broadcasts

Flags, distances and results can be shown on the track or playing field.

Advertising

Advertising signs can be made clearer when poor visibility affects TV broadcasts.

Translation of text

Text can be filmed and translated into other languages in real time.

Motor safety

Moving objects encountered in the dark can be made more visible.

12.45pm/November 29/Kista, Sweden

Ready to roll

At Multimedia Innovation Day, Nathalie Hollier from Ericsson Australia examines what could be a next-generation holiday gift. The receiver of this 3G radio-controlled car could immediately run it from their smartphone because it is equipped with the Blanksim, an innovation by Andreas Ljunggren and Robert Skog (far right), from Multimedia R&D. The pre-installed Blanksim enables instant activation, and spares the consumer the task of acquiring and inserting a sim card.

PHOTO: HAKAN LINDGREN





3 HAVE THEIR SAY

Which mobile tools and applications do you use in your studies?

► **Xue Han, Beijing, China**



I frequently use the Adobe Reader app to read PDF files,

and I use Dropbox for other reports, books and papers related to my studies. I also use calculators; online dictionaries to check spelling and expressions; task-management tools; e-mail; and reference-management tools that sync with PCs.

► **Arun S Venkataraman, Chennai, India**



I use a Micromax phone with a QWERTY keypad. It supports

dual SIM cards, which enables me to use a local phone connection when I'm abroad. Having e-books in my phone helps a lot – there is no need to carry bulky books around.

► **Hugo Blanc, France**



I synchronize calendars, mails, reminders and documents

between my mobile device and computer. Instead of printing lab instructions or course literature, I use GoodReader on my iPad. Also I download course documents and lab instructions from the web and then use Dropbox to organize my files. This way I can access them from anywhere.

Michael Masoliver

On track with GPS

An intelligent GPS- and GSM-based traffic-management system is cutting response times and costs, and improving performance for telent's Rail business in the UK.

TRAFFIC Maintaining 19,000km of railway cabling across the UK gives telent's Rail business a lot of ground to cover. The rail-services unit introduced the TomTom Business Solutions system for 92 of its vehicles two years ago. Installation and Commissioning Manager Lee Clinton says the benefits quickly became obvious, and the unit rolled out the system to a further 30 vehicles a month ago.

Up to speed

"Our maintenance contracts have strict SLAs (service-level agreements) for getting on site," he says. "The system allows us to pinpoint a fault in, say,



PHOTO: TELENT

Dave Massey, a telent technician, responds to an alert sent directly to his TomTom HD traffic system.

a fiber network, and locate the closest technicians. It used to take up to an hour and a quarter to ring everyone and find the closest people. Now it takes 15 minutes.

"The faster we get to a fault, the less chance there is of us breaching the SLA."

The TomTom satellite navigation (GPS) element of the solution – with its GSM connectivity, real-time traffic information and intelligent route planning

– then helps the drivers arrive as quickly as possible. "They now say, 'Just send me the order,' and they can follow the arrows to the destina-

tion," Clinton says.

Mileage is also correctly attributed to the correct cost center. The cost of private travel in company vehicles is deducted from the drivers' wages, while fuel and time are invoiced to the right customer.

Clinton says the system also logs travel and working hours, to ensure drivers take their legally required breaks.

A big hit

The system has impressed those at telent so much, it is now being rolled out to a further 500 vehicles across the company fleet.

John Ambrose

- Telent's Rail business uses a GPS-tracking box from TomTom to provide two-way messaging, live services and intelligent traffic management.
- TomTom's HD traffic system uses information from more than 80

- million mobile phones across the UK to identify traffic congestion.
- Telent is trialing an eco-driving solution that uses on-board diagnostics to provide live miles-per-gallon monitoring and analysis of driver behavior.

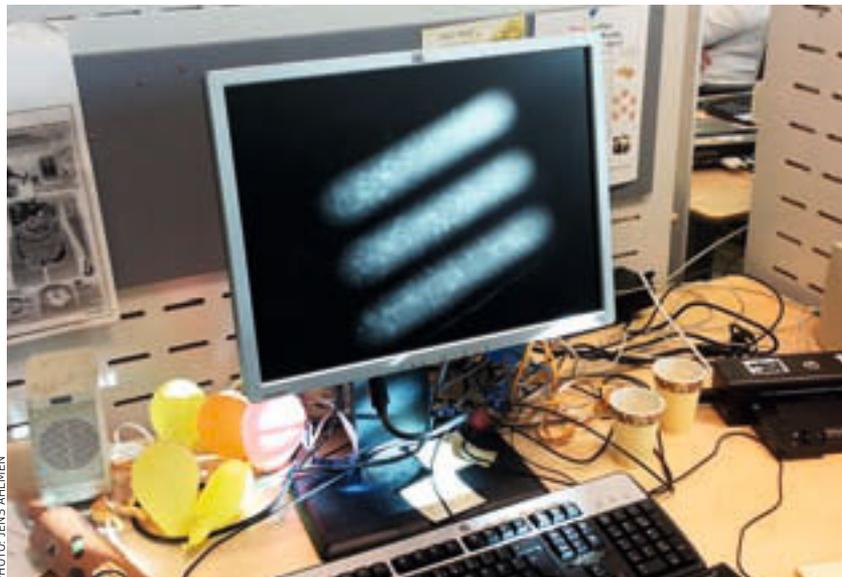


PHOTO: JENS AHLMÉN

A sign from above?

AT WORK One early October morning, a few employees at Ericsson's software supply unit in Linköping, Sweden, witnessed a strange phenomenon. As the early morning sunlight passed through the blinds it created a very familiar symbol on a nearby computer screen.

GLOBAL CITIZENS

Apps help Sheraz sync business and pleasure



Sheraz Masood synchronizes multiple devices and applications in order to balance a hectic work schedule with personal interests that span several continents.

MULTI-TASKING “I never feel stressed by the number of applications I use,” says Masood, who is Head of Customer Support in Region Sub-Sahara Africa. “The tools and applications are there to assist me and run my day properly.”

Three platforms Masood leads a hectic working life that involves a lot of traveling and juggling of several tasks at the same time. To help him stay organized, he relies on his mobile phone, laptop and iPad, as well as a number of applications.

The first thing Masood does in the morning is look at his schedule, which he can access through all three devices. Having his devices “talk to one another” is essential for him to stay on top of things.

Finger on the pulse “I realized early on that I couldn’t rely on my laptop alone,” he says. “Anything can go wrong. I therefore use ActiveSync, which I’ve installed on my phone and iPad, and that allows me to connect to the Ericsson network wherever I am.

“If I’m traveling, for instance, I can check all my e-mails through



PHOTO: FREDERIC COURBET

Sheraz Masood leads a hectic life in Nairobi, Kenya, but still makes time to follow his favorite cricket teams back home in Pakistan.

ActiveSync. This gives people the impression that I’m always available.”

Google Maps is another application Masood uses a lot when he is traveling. “It shows me exactly where I need to go and what time I’ll reach my destination,” he says.

Originally from Pakistan and currently on a long-term assignment in Kenya, Masood finds it important to stay in touch with family and friends, regardless of where he is. Although he talks on the phone a lot less now than he used to,

the new web tools make him feel more connected than ever before. “I never feel alone,” he says.

“I’m also a big fan of cricket. I go onto websites and schedule alerts to my phone and iPad for any major events. My iPad also has access to websites that provide free

viewing of many of the matches.”

Masood’s active use of the web and his mobile tools and applications has created an interest in this area among his colleagues. “They’ve taken a liking to being organized too,” he says.

✉ Torunn Hansen-Tangen

Sheraz Masood’s apps:

- ▶ **Task Scheduler** – an application that helps users keep track of their daily, weekly or monthly tasks.
- ▶ **ActiveSync** – a mobile application from Microsoft that has been customized for Ericsson to give employees access to the company’s network, wherever they are, using any device.
- ▶ **Google Maps** – a map service from Google that provides information about local companies, their whereabouts and contact details.

Vestberg to deliver CES keynote

CONSUMERS Ericsson President and CEO Hans Vestberg will deliver a keynote speech at the 2012 International CES, the world’s largest consumer technology tradeshow. According to the technology news wire CNET, the 2011 CES was attended by more than 140,000 people. The 2012 event will take place from January 10-13 in Las Vegas, in the US.

Karlskrona turns 30

MILESTONE On November 9, 2011, Ericsson Karlskrona, a software development unit in southern Sweden, celebrated 30 years of operation. Today, the Karlskrona site EPK develops OSS/BSS solutions that support around 300 telecom operators worldwide. To mark the occasion, employees were treated to 30 cakes specially designed for the occasion.



Facebook ‘likes’ Luleå

GREEN TECH Facebook plans to build Europe’s largest data center in the city of Luleå, in the far north of Sweden, in an effort to save on cooling costs.

Source: Wall Street Journal

239

...million smartphones were shipped in China during the third quarter of 2011, making that country the largest smartphone market in the world.

Source: Engadget Mobile

3 HAVE THEIR SAY

In early November, the results of the 2011 Dialog Survey became available. Below are several responses to the question of how we can improve our ways of working in the future.

► **Saimée Fontana, Region Latin America**



"Identify the needs, set clear action plans and establish a

wanted position. Then try to involve everyone with your ideas for success. I'm a certified Six Sigma Green Belt – a methodology which follows five main principles: define, measure, analyze, improve and control. I strongly suggest studying this approach."

► **Wendy Huang, Region China and North East Asia**



"Support business excellence by enhancing employee

satisfaction. Make them happy but also help them become more committed. We need to increase efforts to improve cross-border communication and cooperation."

► **Mauricio Mahfud, Region Latin America**



"Use the output of the Dialog survey as the basis for a solid

plan. Involve employees directly in the discussion and definition of priorities, and be open to all input."

✉ David Francisco

Read more about Dialog 2011: Global Intranet/Employee Info/Dialog



PHOTO: SCANIA/MARK BOURDILLON

Information about fuel consumption is transmitted from delivery trucks to servers back at Scania.

Scania delivers on M2M

Heavy truck and bus manufacturer Scania uses advanced machine-to-machine (M2M) communications to fulfill its vision of building the most profitable vehicles in the world.

NETWORKED SOCIETY All Scania trucks are fitted with the Communicator 200 – a little black box that collects information about fuel consumption, how the vehicle is being driven, its whereabouts and many other details. The M2M fleet management system then sends this information to a server, located centrally at Scania, before pushing it to the respective truck owners' web portals.

Pär Wallin, Head of Fleet Management at

Scania, says that the company's mission is to create the most profitable trucks in the world and that M2M fleet management has an important role to play in achieving this aim, especially when it comes to fuel efficiency.

Reduce fuel costs

"One-third of all costs for transport companies in Europe come down to fuel," Wallin says. "With our system, a company can save up to 10 percent per year in fuel costs."

This reduction is mainly achieved by offering courses on how to drive more econo-

mically. And, as part of the training, Scania also looks at how best to improve a company's transportation.

Mobile broadband

Wallin says the company's M2M fleet management system requires a good mobile broadband connection, since truck owners

expect to get up-to-the-minute information about their fleets.

He expects the demand for solutions such as Communicator 200 to grow and believes that it will be a deciding factor when transport companies choose which trucks to purchase in the future.

✉ Torunn Hansen-Tangen



Pär Wallin

How Ericsson is helping Scania

ERICSSON is working with the operator Telenor Connexion to help Scania develop its M2M fleet-management system. Ericsson is responsible for the connections between the trucks and the database, ensuring that the information is

transmitted without any disturbance or interruption.

"Our customers rely on the information they receive from us to run a smooth and efficient business," says Pär Wallin at Scania.

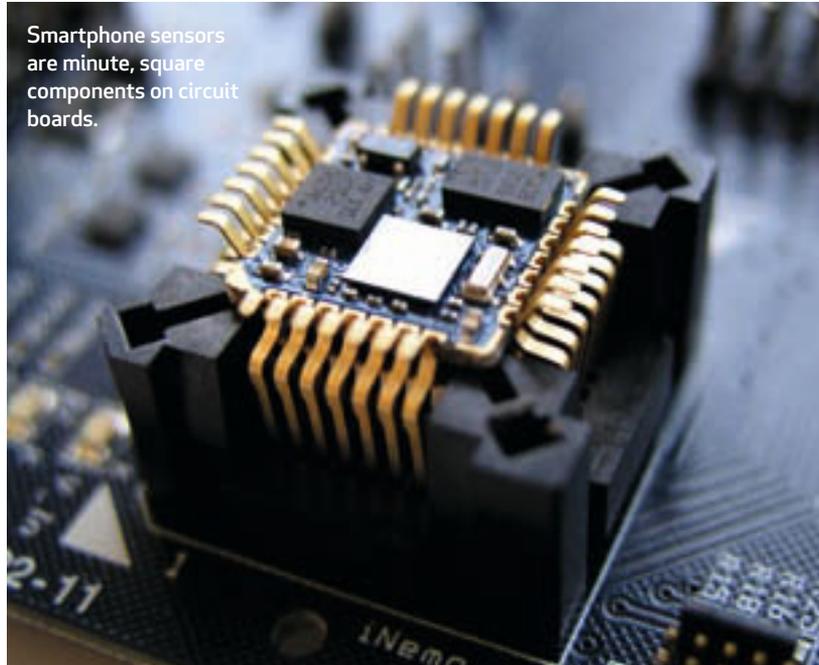
Smartphones get more sensitive

The next-generation sensors for smartphones are on their way. These will make it possible to measure blood pressure and blood-sugar levels using a mobile phone.

MICROELECTRONICS The most common sensors in smartphones today are the kinds that are sensitive to physical movement, such as acceleration and leaning. But new sensors could make it possible to measure blood pressure or blood-sugar levels, for example, without requiring needles or cuffs.

Public health

“Many people exercise and try to eat healthily,” says Björn Ekelund, Head of Ecosystems and Research, at ST-Ericsson. “When you jog, you could have a mobile phone in your pocket that gives you information about your physical exertion levels, your heart rate



Smartphone sensors are minute, square components on circuit boards.

PHOTO: ST-ERICSSON

or how many calories you’ve burned. If these functions are easily accessible, it may even improve the health of the general public.

Future sensors

“But I also think many future sensor innovations will be based on

software, and revolve around how the sensors’ signals combine with various cloud services.”

Eklund says some of the sensors will have a

medical purpose and believes that popular applications will determine the makeup of the new sensors.

✉ Anders Jinneklint

► *Footnote: ST-Ericsson is a leading mobile-platform manufacturer. Even though the company does not manufacture sensors, its employees are involved in innovation for the mobile phones of the future.*

Lack of digital knowhow

REPORT Nearly 80 percent of all large global companies say that the biggest obstacle to benefiting from the opportunities provided by digital technology is a lack of competence in areas such as social media and mobile technology, according to the Digital Transformation report by Caggemini Consulting and the Massachusetts Institute of Technology. The report suggests that digital technology can radically improve business results, but to achieve this, successful organizational change and the implementation of new technology must take place first. A total of 157 decision-makers in global companies across 15 countries were interviewed for the report.

ZTE bails on US

COMPETITION China’s ZTE says it will not compete in core network deals in the US for the foreseeable future after the US government blocked a deal with the American-operator Sprint. US officials and lawmakers have labeled ZTE and fellow Chinese vendor Huawei as “security threats” and the US Commerce Department recently barred Huawei from a national emergency services network, citing security concerns.

Source: Wall Street Journal

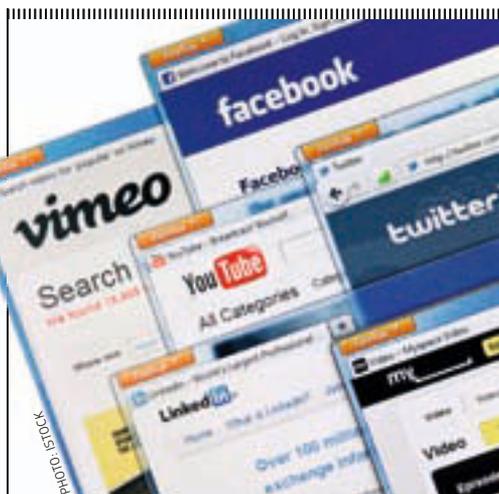


PHOTO: SHUTTERSTOCK

CARE TO SHARE?

CONSUMERLAB Are you worried that information you share about yourself online will be used by others? Surprisingly only 35 percent of respondents to a recent Ericsson ConsumerLab study said they are.

In the same study, 86 percent said they believe that social networking sites can use their personal information online for commercial or other purposes. One conclusion is that although

consumers’ awareness of privacy issues is increasing, they still lack a sense of urgency.

In the ICT industry however there is agreement that privacy will grow in importance. The continuous evolution of social media and the advent of the Networked Society with 50 billion connected devices will put the issue of privacy high on the agenda.

✉ Johan-Gabriel Fritz

20... percent increase over the past five years in the number of illegally downloaded video games.

Source: BBC

Hello...



... **Laura Diaconescu**, Global Coordinator for the Ericsson-AIESEC partnership, a cooperation aimed at increasing the knowledge of career opportunities at Ericsson among students worldwide.

What is AIESEC?

"AIESEC is a youth organization with over 60,000 members in 110 countries that coordinates international internships for students and recent graduates. In August 2011, Ericsson became an AIESEC Global Partner to improve talent sourcing."

What is your experience with AIESEC?

"I got involved with AIESEC while studying International Affairs at the University of Transylvania in Romania. Later I became a National Manager for AIESEC in Romania, where I was responsible for consulting local branches, managing a leadership team and representing the country at international AIESEC meetings."

Why is this partnership important?

"The partnership is a win-win situation for Ericsson and AIESEC members. Ericsson is an attractive employer that uses innovation to empower people, business and society. Similarly, AIESEC members strive to make a positive impact on society. In many ways we share a common vision."

☒ Jonathan Rothwell



Ericsson's Chris Wilson (center) instructs Telstra's James Kramel (left) and Steve Dargham (right) in linear broadcast TV at the recent certification course in Sydney, Australia.

Certification creates confidence

Telstra has chosen Ericsson's Certification Program within linear broadcast TV technology to strengthen its technicians' competencies in broadcasting.

CERTIFICATIONS Telstra International's Principle Solutions Architect Steven Dargham and Solutions Architect James Kramel are the first two non-Ericsson technicians to be certified under the program. Combined, the men have more than 35 years' experience working in the telecommunications industry.

Dargham says he has been looking to be certified for the past seven years through an industry/broadcasting

program that combines traditional telecommunications skills with broadcast-engineering skills.

Closer to customers

"A typical day at work for me could consist of designing network-broadcast solutions for special events such as the Olympics, selling media services, or supporting customers with complex issues," he says. "So it is important that I have the right skill set to fulfill all my responsibilities."

"Being certified has helped fill the gaps where my knowledge was lacking, and now that I have a stronger understanding of the technology I'm better equipped to serve my customers."

Dargham and Kramel say they are enthusiastic about finally being certified as it will enable them to work more directly with the broadcaster and understand the terminology and technologies involved.

"The network is moving closer to the broadcaster's domain, so it is important that we talk at the same level," Kramel says. "Now I can understand what they are looking for and can provide them with the right details on how to enhance their solution. So it's a very valuable course. It has really enhanced our knowledge."

Industry standard

The certifications in Australia are the first

to take place outside of Ericsson, underlining the company's status as a thought leader. Arne Kollberg, Head of Ericsson Technical Certification Program, says it was a great opportunity for Ericsson to share its knowledge with other stakeholders in the business.

"It is also very motivating for individuals to learn and to be able to get a certificate recognizing their efforts," he says.

The long-term goal is to make the certification an industry standard.

☒ Sophie Bennett

► To learn more about the Ericsson Technical Certification Program, contact: Arne.Kollberg@ericsson.com



PHOTO: ERICSSON

Mobitex gets data moving

FLASHBACK During the 1980s, Ericsson, together with Televerket, Sweden's national telecommunications administration at that time, developed Mobitex, an open technology for packet-switched data networks. The company behind the narrowband technology was eventually consolidated into a wholly-owned subsidiary of Ericsson, and was then divested in 2004. In this image from 1994, Per Stein of Ericsson demonstrates Mobitex to Carl Bildt, then Swedish Prime Minister.

Source: Centre for Business History

South Korea: it's spam block time

CYBER POLIS The BBC reports that South Korea is the second-largest source of spam in the world. The government there has suggested re-routing all e-mail traffic over official servers in an effort to filter out the unwanted messages.

Smart cities get own OS

SOCIETY A new operating system has been designed for running smart cities. Urban OS gathers data from sensors across a city, providing feedback that allows services, traffic and buildings to run smoothly. Software designers from Living PlanIT say their plan is to eventually integrate smartphones into the system.

Source: BBC

“We shouldn't think of programming narrowly as a tool for a professional activity but as a means of expression. Our goal is not just for kids to grow up and get jobs as programmers. Everyone should be able to express themselves with online media.”

Mitchel Resnick, Professor of Learning Research at M.I.T.'s Media Lab and coordinator of the Scratch Project which has developed a computer programming language that specifically targets young children. Source: New York Times

COMPETE AND WIN A PRIZE

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



1. According to a report by market-research firm IBIS, how many text messages are sent each day by mobile users around the world?
2. CUL8R is a typical example of the recent phenomenon of txt-speak. Do you know what it means?
3. What does the 'm' in Ericsson's product, m-health, stand for?

Write your answer after each question in an e-mail, put "competition" in the subject field

- and send your entry to contact.comments@ericsson.com by January 13. The winner will receive a copy of the Ericsson book Changing the World. If we receive several sets of correct answers, the name of the winner will be drawn from a hat. Good luck! The winner of the last competition was Sofia Wahl, Sweden. Answers to last month's quiz:
1. Ericsson Crash Commission
 2. July 1, 1991
 3. A social-media site

Social-media voices

ERICSSON **Follow the Expert** is a series of short films, hosted by respected minds at Ericsson, covering topics such as BSS, Mobile World Congress, prototype demonstrations and more. <http://www.ericsson.com/>

FACEBOOK **The Networked Society** is connecting not just people but also communities, systems and intelligence, enabling us to collaborate, innovate, sustain, learn, care and participate. <http://ericsson.com/networkedsociety>

TWITTER **Ericssonpress** is Ericsson's Twitter account, used to communicate the latest news and announcements of interest to investors and the media. <http://twitter.com/Ericssonpress>

BLOGS **Mashable** is one of the top-ranked tech blogs on the internet with 20 million unique visitors each month and over 4 million followers in social media. <http://mashable.com/>

Have you come across any thought-provoking blogs or blog posts? Let us know by sending an e-mail to contact.comments@ericsson.com

Car key blocks calls

SAFETY A new feature in Ford cars will block mobile phone calls while the car is in motion. Tech website The Inquirer reports that the MyKey function will block calls and text messages to a drivers' phones while they are driving. The feature is available on Ford Fiesta models from 2012 and is designed to reduce distractions for younger drivers.

51

... is the number of games developer Rovio released before breaking into the big time with Angry Birds.

Source: Wired



LEARN MORE

Are you interested in learning more about Ericsson's history? Start by visiting www.ericssonhistory.com, or order your copy of *Changing the World: the Story of Lars Magnus Ericsson and His Successors*, by Svenolof Karlsson and Anders Lugn (2009) from <http://merchandise.ericsson.com>.

The Centre for Business History can help you with research on Ericsson's history, and it can package the information for you in a useful way. Get in touch by sending an e-mail to: info@naringslivshistoria.se.

INTERVIEW: KJELL-ÅKE RYDÉN

Kjell-Åke Rydén, Brand Consistency Manager at Group Function Communications, often turns to the company's history for inspiration in his work. He urges other employees to follow his example.

Take advantage of Ericsson's history

During its 135 years in business, Ericsson has accumulated a variety of interesting and important documents. The company's archives occupy almost 2,000m of shelf space at the Centre for Business History in Ulvsunda, Stockholm.

Rydén, whose work focuses on maintaining and safeguarding the Ericsson brand, is a frequent visitor to Ericsson's archives. Above all, he uses events from Ericsson's history in his work with communication and marketing. Our current brand strategy is closely linked to our history, he explains.

"Our past tells us where we came from, who we are and where we're headed," he says. "It makes us unique – and it's what sets us apart from our competitors."

Rydén shows us around the collection of binders and meeting minutes dating from the years soon after Ericsson was founded, when the company was housed in various workshops in central Stockholm. It's clear that, from the very beginning, founder Lars Magnus Ericsson was driven by a strong desire to make telephone communication accessible to as many people as possible. Since then,

his approach has continued to be a common theme throughout the company's history. What else do innovations such as the 500-switch system (1923), the crossbar switch (1950) and the digital group selector in AXE exchanges (1978) have in common, if not their ability to allow billions of people worldwide to communicate with each other?

"All these years, we've managed to stay true to our core values, even if they haven't always been expressed as specifically as today," Rydén says. "That's an achievement in itself, but it's also part of the reason why we've been so successful and why we continue to do so well."

Another continuing tradition at Ericsson is the company's global perspective. The Centre for Business History has also collected a variety of stories about the pioneering Ericsson salespeople who set off on arduous international sales trips in the early 20th century.

"Even at that time, 95 percent of our sales were to customers outside Sweden, and that's only marginally lower than today's rate, which is about 97 percent," Rydén says. "From the very beginning, we were a global company with a broad product portfolio. All these years, we've managed to stick to a strategy that's

obviously helped us spread our risks."

Rydén is sure that everyone at Ericsson has much to gain by learning more about the company's past. We would not only find new reasons to be proud of the place where we work – a better understanding of our history would also be useful in sales contexts and in other kinds of meetings with customers or partners.

"On many different occasions, we've seen that customers truly value our long, eventful history," he says. "We're an experienced, trustworthy partner. That makes a big difference when we do business."

One way we can make our history work for us is to tell the stories of successful solutions from the past, Rydén says. During sales meetings, it can also be useful to turn to historical events and consider how Ericsson succeeded in past situations that are relevant for current challenges.

"These are fascinating stories, and we all have something to gain by learning about them," he says. "I'm amazed by the remarkable things we've achieved over the years, and by what we're doing today as well. I'm very proud of our company and glad to be a part of it all."

✉ Text: Michael Masoliver Photo: Per Myrehed



"City development is never complete, but you can be on the right track, and I think we are."

Jean-Louis Missika,
Deputy Mayor of Paris

SMART CITIES

During the next 20 years, the total **population** of the world's cities will rise by nearly 1.5 billion. A well-conceived ICT infrastructure will be an effective way to achieve sustainable **urban development**. But the future needs to be planned now.

Redrawing the map of Paris



When we think of Paris, we tend to think of a city of romance, culture, fashion and culinary delights. But this old city is also focusing on the new – Paris is making big investments in innovation, for the benefit of residents and companies alike. The key is to bring together talented people.

“Is it a Renault?” asks an elderly gentleman, pointing to an eye-catching electric car.

“No, it’s a Bolloré,” answers the driver, Rodolphe Schwartz.

“Oh, nice car,” says the gentleman and plods on.

He’s just had a taste of one of the Paris region’s latest innovations, the Autolib’ project. An Autolib’

subscription gives residents of the city and 45 of its suburbs the opportunity to pick up an electric car from a special parking station, drive off and then leave the car at the station of their choice. A subscriber can reserve a car online or by using a smartphone, or simply turn up at the station in the hope of finding an available car there. The service was established by the city authorities, but has been contracted out to a large company called Bolloré. Autolib’ – a contraction of the French words “automobile” (car) and “liberté” (freedom) – was launched on December 5, but when Contact visited Paris in late October, the entire system invol- ▶



Rodolphe Schwartz



Paris is in a relatively good position in terms of its infrastructure. Fiber has been rolled out all across the city, ready to be connected to residential areas. The city offers 500 free Wi-Fi hotspots, and most people have internet access.

“There’s a bright future ahead for Paris if we stay on our toes”

Jean-Louis Missika

Did you know...

that installing fiber networks in Paris was easy, because the tunnels in the city’s sewer systems are so large that you can walk upright in them? There was no need to dig – thanks to the way Georges-Eugène Haussmann rebuilt the city in the 19th century.

Source: City of Paris

►ving cars, support center and stations, is being tested. By mid-2012, there are expected to be 3,000 Autolib’ cars and around 1,200 stations equipped with around 6,600 charging poles in Paris and its suburbs.

“This is a high-tech car with an efficient battery, GPS, GSM connection to our operations center, and RFID (radio frequency identification) to activate it,” Schwartz, Director at Bolloré’s development division and one of the company’s test drivers, says. “Paris is the first city in the world to implement a project like this on such a grand scale.”

Autolib’ is a way for the city to reduce air and noise pollution. Estimates indicate that carbon emissions in Paris could be reduced by 22,000 tons annually, and 3,000 electric cars are due to replace 22,000 regular ones and therefore also reduce parking problems. The city authorities also want to give citizens who can’t afford

a car the opportunity to drive. The Autolib’ press kit says that the project’s goal is to “transform the entire transportation system.”

The project is an example of how an innovative approach is being taken in Paris to help solve problems that didn’t exist when the city was built. Paris is still just as much an old city as it is a modern metropolis, and the aim is to create an attractive city for residents, companies and entrepreneurs alike. Paris needs to be an environmentally sustainable city, a center of entertainment and culture, as well as a financial powerhouse.

Compared with other major cities, Paris is doing well in many ways, but there is always room for improvement. The city is ranked eighth overall in an assessment of 26 leading global cities in Cities of Opportunity, a 2011 report by professional services consulting company PwC. A closer look at the report reveals that Paris tops the category

Transportation and Infrastructure and is ranked fifth in Intellectual Capital and Innovation. It finishes in 11th place in the Sustainability category, but only 13th in Technology Readiness and 15th in Ease of Doing Business. When the Economist Intelligence Unit recently ranked the world’s best cities to live in, Paris finished in 16th place out of 140 cities, and in Ericsson’s own Networked Society City Index, the French capital was ranked fifth out of 25 cities.

However, as for any major city, Paris faces a wide range of challenges. Traffic, a housing shortage, environmental problems, and transparency... These are some of the areas in which the Paris authorities want to make improvements.

“City development is never complete, but you can be on the right track, and I think we are. Compared with many other cities, we’re doing many good things, but our citizens don’t compare

“Paris is the first city in the world to implement a project like this on such a grand scale” Rodolphe Schwarz

Paris to other cities; they look at how it was before or could be tomorrow,” says Jean-Louis Missika, Deputy Mayor of Paris, who is responsible for the city’s efforts related to innovation. With a background in both high-tech business and academics, and as a professor of media sociology, he entered politics in 2008. His position as an innovation manager was established when Mayor Bertrand Delanoë decided to promote the city’s capacity for innovation.

Missika says that Paris is one of the few metropolises that have always been hot spots for innovation. All the big issues have been discussed here – philosophical, theological, financial and political. The city has witnessed feats of engineering such as Georges-Eugène Haussmann’s 19th-century modernization of the city, and the construction of the Eiffel Tower in 1889. Paris-Sorbonne University was the first to gather students, teachers and thinkers from all over Europe in one place, creating a cluster of minds.

“Paris has always been a place for the transmission of knowledge and production of new knowledge,” Missika



says. “We have a tradition of innovation. So Paris is not only a good place for lovers and tourists, it’s also a place for new ideas, an economic power and a good place to start a business.”

Even though Paris is one of the world’s strongest economic regions, further investments are needed. The city lost some ground during the internet revolution and its start-up culture, and this is where Missika’s innovation efforts come into the picture.

Like the governments of most of the world’s major cities, the leaders

One innovation that is literally rolling into Paris is this electric Bolloré car, which can be booked with a smartphone. Soon, 3,000 of these cars will be driven around the city, available to anyone with a driver’s license.

of Paris are thinking about how their city can attract capital, sharp thinkers, companies and entrepreneurs.

“There’s an economic stake in this for us to make Paris a worldwide competitor – not just a museum city such as Rome,” says Missika. “We must walk with one foot in the past and one foot in the future. There’s a bright future ahead for Paris if we stay on our toes.”

The key concept behind his strategy is to build a kind of intellectual infrastructure by gathering creative minds together. Paris will become a one-stop shop for innovation. To promote this target, the city is helping to finance clusters where companies and researchers gather to work with a variety of themes and provides funding for the R&D projects they foster. The city is also making extensive investments in incubators for start-ups that will use various kinds of support functions and networks to help entrepreneurs realize their ideas.

About two years ago, the Paris Region Lab was established. This city authority makes it possible for companies to test their products ▶

10 EXAMPLES OF HOW PARIS HAS EVOLVED INTO A SMART CITY:

1. E-government services were first launched in 2001, with a strong push since 2008

2. Families whose children are involved in various activities organized by the city can receive one digital invoice instead of several, and the number of services included in the Facil’ Familles (Easy for Families) program will be increased

3. Citizens can sign petitions and submit applications using e-identification tools

4. Political debates are broadcasted online, and the

city publishes all decisions on its website; this has led to discussions about these topics on Twitter

5. The Panammes project allows the visually impaired to test technical assistive devices to look for information and find their way more easily in selected parts of the city; the devices use positioning services and RFID technology

6. Paris Region Lab recently issued a tender for urban furniture, and now 40 product prototypes will be tested on streets, in parks and market squares; examples include bus stations that use

information technology, a gigantic Android internet touchscreen, stations where electric bikes are charged wirelessly through induction and hotspots with power outlets and roofs made of grass

7. Paris Region Lab has also requested proposals of technical products that will help older people stay at home rather than moving to residential care facilities

8. Mobile operators and banks are working on various NFC (near field communication) projects, including the use of mobile

phones to pay public transit fares

9. In 2009 and 2011, the “Futur en Seine” festival celebrating digital life and digital creativity was held in Paris, featuring seminars, workshops and displays of prototypes

10. The Vélib’ (liberated bicycles) project, established in 2007, enables subscribers borrow bicycles that they can pick up and drop off at the Vélib’ station of their choice; the Autolib’ project described in the main text is based on the same idea, but involves electric cars instead.



Jean-Louis Missika, Deputy Mayor of Paris.

Did you know...

that Wired UK included Paris on its "Europe's hottest startup capitals" list in August?

► in realistic conditions. The name suggests that it is a traditional laboratory, but nothing could be farther from the truth.

"We offer companies the opportunity to test their products and services in the streets of Paris and in our official buildings," says Sabine Romon at Paris Region Lab.

The idea is to help companies that have completed the research and development phase and want to test their products live with the citizens of Paris. Paris Region Lab helps them to obtain the necessary permits, and arrange meetings with the right people in the city. Paris Region Lab is part of the city's innovation ecosystem.

"Without us, companies wouldn't be able to do any experiments in the streets," Romon says.

In January, the city also opened up

its databases. This initiative promotes transparency, and it enables companies and entrepreneurs to develop products and services based on the information.

"We really believe in information sharing," says Missika. "The whole of Paris has more knowledge and more bright ideas than the City Hall does."

ICT plays an important role in the creation of an innovative Paris.

"ICT is the blood of everything," says Missika. "We need high-speed networks, and applications for cooperation, and we need mobility. We can't get people to work together without technology. It's also crucial for environmentally sustainable technology and green cities. Smart grids, for instance, are mainly based on communications."

In terms of infrastructure, Paris is doing relatively well. Most people have internet access, and in poorer parts of the city, subsidized internet cafés teach people how to go online. The entire city has fiber networks, ready to be deployed into the apartment buildings. Paris has 500 free Wi-Fi hotspots, and almost everyone has a mobile phone.

But Missika is placing his hopes in the intellectual infrastructure that's being built up in the city. This is what

NEW CITIES FOUNDATION

ERICSSON IS TAKING on the challenges of urbanization through its partnership in the New Cities Foundation. The foundation, which was co-founded in 2011 by Ericsson, Cisco and GE, aims to be the premier high-level platform for innovation and exchange of information on the future of urbanization. Leading the foundation's task force on commuting congestion in San Jose, US, Ericsson and local officials are working with academia and mobile app developers on a study that connects commuters in real-time via social media. By looking at the kinds of information commuters share when they are connected in real-time, the participants will have a basis for developing products, technologies and services to make commuting more efficient.

will generate a variety of good ideas that will promote Paris, its citizens and the economy. We asked him what will play the biggest role of all for Paris in this age of innovation.

His reply: "Gathering talents and connecting smart people."

Text: Jonas Blomqvist Photo: Stefan Borgius

SMART CITIES THE FOCUS FOR STRATEGY TEAM



Clara Pelaez

Clara Pelaez, Head of Strategy and Marketing for Ericsson's Region Mediterranean (RMED), and her team have been focusing for several years on smart cities.

How do you and your team work with governments and operators to promote Ericsson?

We approach city managements directly, in collaboration with our verticals KAMs and the Engagement Practices. We present Ericsson, our Networked Society vision

and capabilities, and then start a dialog on potential areas of collaboration. In other cases, we have put in successful bids for city tenders for developing, supplying and integrating different smart-city applications in key areas of interest. A third alternative is to develop a solution that we then present to a suitable city and deploy in a pilot project.

What kinds of projects are you involved in at the moment?

The most recent one is the

memorandum of understanding we have signed with the Municipality of Genoa in Italy for smart mobility solutions. The city's aim here is to improve efficiency in the key transport and mobility sectors by using a range of intelligent mobility solutions. We are currently collaborating with Telecom Italia to identify, analyze and process citizens' mobility behavior. Other interesting projects include the Veria Smart City in Greece and Ecobus in Belgrade, Serbia in collaboration

with Telekom Srbija.

What tools do you have to assist you?

The Ericsson Networked Society City Index (*read more on pages 22-24*) is a very useful tool for us, and it helps a lot during the initial engagement phase. We try to inspire our Mediterranean cities by showing results from the City Index on how top-performing cities successfully use ICT to grow and obtain social, economic and environmental benefits.

Michael Masoliver

SMART CITIES

"We offer companies the opportunity to test their products and services in the streets of Paris and in our official buildings," says Sabine Romon of Paris Region Lab.



Ericsson's Networked Society City Index shows that, in the last few years, more and more decision makers all over the world have realized the importance of making strategic investments in ICT.



Think innovation – think ICT



ALL AROUND
THE WORLD

Ericsson has one main message for civic authorities as they plan the future of their cities: rethink and place a greater emphasis on innovation and ICT.

For many years, urban infrastructure was synonymous with tangible projects, such as building bridges, roads, tunnels and streets. But in recent times, more and more decision makers around the world have begun to realize the value of making strategic investments in ICT, according to the latest Ericsson Networked Society City Index.

This regularly published index charts the importance of ICT investments for economic, social and environmental developments in the world's major cities. And it is no coincidence that it

covers cities. Patrik Regårdh, Head of Strategic Marketing at Ericsson, explains that urbanization is one of today's strongest international trends, alongside globalization and technological development.



Patrik Regårdh

“More and more people are heading for the cities, where they often have better opportunities to support themselves than they would in rural areas,” he says. “And this is also where the majority of future economic growth is expected to be.”

The cities that have the best growth opportunities are those that make effective use of ICT; the most important conclusion in the latest edition of the index is that there are direct links

between ICT investment and general prosperity.

These connections include investments that improve conditions for the local trade and industry sector by offering an infrastructure with a high level of accessibility and low transaction costs. This helps improve a city's competitiveness, which in the long term leads to more job opportunities, higher tax revenues and a greater influx of competent manpower.

Collaborative projects between municipalities, high schools, and trade and industry have proved successful in many cities, as have internet-based investments that simplify and improve the contact between a city and its citizens.

“One interesting detail here is that this connection is always evident, ▶

ICT AROUND THE WORLD



SINGAPORE. A high general level of ICT maturity, and favorable returns on investments made in ICT, helped take Singapore to the top of the Networked Society City Index of 25 cities. One important factor here is the high level of commitment from civic authorities, who formulated a strategy for long-term growth through Singapore's ICT industry as early as 2006. The strategy includes attracting foreign investors to Singapore, and one of its main goals is to ensure development throughout the country.



DELHI. India offers a much-publicized example of how ICT can be used to reinforce the social safety net. The Mission Convergence program is primarily aimed at the city's most vulnerable and poorest citizens. In the first stage of the initiative, the authorities collect information from various sources to register those in greatest need of support. Almost 900,000 households have been registered so far. The next stage will consist of customizing aid efforts to those in need, through about 100 field offices.



NEW YORK. The city is investing in ICT to reduce inequality among its citizens. One such initiative, NYC Connected Learning Initiative, is aimed at about 18,500 elementary school students in low-income families. Each student participating in the program receives a free PC, and the students receive discounts on broadband connections. The intention with the initiative is for schools to bring lessons into the home to enable more parents to become involved in their children's education.



SÃO PAULO. São Paulo, Brazil is driving several initiatives to bring all of its citizens into the digital world. The city's efforts are mainly concentrated on youths, people in low-income brackets and those with various disabilities, and they include initiatives such as customized investments in education. The city has also established almost 400 telecenters, which are similar to free internet cafés. Many of these centers are situated in suburban areas with a high proportion of low-income earners.



ICT can make a variety of contributions toward environmentally sustainable urban development. Smart solutions that minimize energy consumption, optimize traffic flows or reduce emissions are just a few examples.

“More and more people are heading for the cities, where they often have better opportunities to support themselves than they would in rural areas”

Patrik Regårdh

Did you know ...

that about half of the world's population now lives in cities, and cities now contribute about 80 percent of the world's combined gross national product?

Source: McKinsey Global Institute

regardless of how well advanced a city is in terms of technology. In other words, investing in ICT is always worthwhile,” Regårdh says.

In the index, several examples of this trend come from cities where the rapid population growth of recent years has placed considerable burdens on infrastructure, especially in terms of education, the labor market, transport and health care.

In many cases, ICT investment has obvious social benefits. These can include expanding broadband networks without the need for additional investment, e-learning for the unskilled, targeted aid investments for the most vulnerable groups in society, and internet-based solutions to give citizens more involvement in the democratic decision-making process.

“We’ve also known for some time that people’s general technological maturity is essential,” Regårdh says. “For example, it’s highly important for a city’s ability to develop and compete internationally.”

Other examples in the index show the variety of ways in which ICT investments can contribute toward environmentally sustainable urban development. These include smart solutions to make energy consumption more efficient, optimize traffic flows or reduce emissions.

In other words, the index demonstrates that decision makers who want to support urban development that takes into account economic, social and environmental issues should invest in ICT – not just in bricks and mortar, Regårdh says.

“Local conditions will then play the biggest role in determining which strategy to choose,” he says.

But the investments should not stop at sporadic purchases of a technological novelty of one kind or another. It’s more important to lay a solid foundation for future developments – which can be very hard to predict, says Regårdh, giving the example of the importance of social media in the unexpected political upheaval in the Arab world in 2011.

“It’s all about trying to invest in an open and clear infrastructure – right from the start – an infrastructure that not only provides high speeds, but which will also make the most of a society’s ability to innovate for many years to come,” Regårdh says.

Text: Michael Masoliver Illustration: Ebba Berggren

Making sense

Carlo Ratti, a professor at Massachusetts Institute of Technology (MIT), is a Founding Director of the SENSEable City Laboratory. He and his colleagues analyze the way new technologies are changing the way we understand, design and ultimately live in cities.

How do smart cities differ from normal cities?

In the past, cities were built using bricks, mortar and steel. In the future, cities will be built from concrete and silicon. Cities covered by many digital layers are becoming, in many ways, like open-air computers.

Are you inspired by any smart city in particular?

Cairo can be considered one of the most interesting examples of a smart city. The citizens of Cairo, and all of the other cities who took part in the Arab Spring demonstrations and protests, used technology to bring about incredible change.

They used the digital space (Facebook, Twitter, Foursquare and so on) to alter physical space. It would have been difficult to do this without access to new technologies – especially mobile networks.

How important is collaboration?

A city is about integration. A smart city is the same: collaboration between different disciplines, and also between industries and academia, is incredibly important.

There's an abundance of information available nowadays. Is it challenging to find relevant data?

That's a very good point. We have so much information available to us nowadays that we need to find ways to simplify it. New data visualization tools can help us make sense of this information.

What interesting projects are you involved in right now?

We are working on a number of projects focusing on trash and e-waste. We used tiny sensors in our Trash Track project to trace trash throughout the US and help highlight how trash disposal could be improved.

In another project we are examining ways that urban dwellers and vendors in South Tyrol, Italy can get up-to-date information on local produce. Our Matching Markets project allows vendors to match supply with demand despite seasonal changes due to tourism or even event-driven fluctuations.

Additional information about these and other projects is available on our website: senseable.mit.edu

Can these projects be applied to other cities?

Every smart city is unique. Solutions tailored to match one city cannot be applied universally, but we can learn from the information we gather to help shape and improve other modern cities.

✉ Text: Jonathan Rothwell Photo: Getty Images

MIT AND SENSEABLE CITY LABORATORY

• Founded in 2004 • Draws on diverse fields such as urban planning, architecture and engineering to investigate and anticipate how digital technologies are changing people's lives • About 30 researchers are working on SENSEable City activities • Partners include AT&T, General Electric and Audi • Recent projects include: the Copenhagen Wheel, Live Singapore, Trash Track, Digital Water Pavilion, New York Talk Exchange and Real Time Rome.



Carlo Ratti, a professor at Massachusetts Institute of Technology (MIT).



“I can use the health measuring **equipment** at home or outside, wherever I want.”

Marko Pletikosić



MOBILE HEALTH

Takes your health to heart

Medical checkups that use mobile technology mean chronically ill **patients** can avoid constant visits to the hospital. Thanks to ICT, these patients can go about their daily activities while their **doctors** keep track of their health.



ZAGREB
CROATIA EUROPE

The sun slowly sets over the small Croatian city of Karlovac as Marko Pletikosić finishes a short training session on his in-line skates. He walks a short distance away from the graffiti-covered rink, sits down on a park bench and takes out his electrocardiogram (ECG) and blood-pressure equipment.

Only three weeks ago, the 28-year-old ice-hockey goaltender and gardener underwent cardiac surgery because he was experiencing severe heart palpitations caused by a congenital heart defect. To avoid frequent follow-up visits to the hospital and possible re-admission, he takes his own tests and sends the results digitally to his doctor on a regular basis.

“The biggest advantage of this technology is that I can use the equipment at home or outside, wherever I want. It’s easy to use, and I always bring it with me when I train,” he says as he pulls up his hockey shirt and attaches the ECG equipment to his chest.

Pletikosić is one of 10 patients taking part in a pilot study that focuses on mobile health (m-health). This collaborative project involves Ericsson Nikola Tesla in Zagreb, Croatia, and Magdalena Hospi-

tal north of the city. Pletikosić first visited this, the country’s largest private hospital in February 2011, and has had two operations there. Since his first operation, in May, Pletikosić has been using the mobile equipment regularly.

“Since the second operation I’ve felt fine, but it still feels reassuring to have these m-health checkups,” he says. “Before the second operation, my pulse sometimes rose to 200bpm (beats per minute) during hockey practice and I had to be rushed by ambulance to the emergency room.”

Pletikosić’s girlfriend, Marta Tomić, agrees the technology has given the couple more peace of mind.

“Sometimes Marko’s symptoms would go on for an hour, and it was easy to start panicking,” she says. “It feels comforting to know that the doctors have a direct connection and can monitor his condition in real time.”

The equipment makes a beeping sound, and the ECG test is completed in just five seconds. The result will be sent by Bluetooth to a transmitter equipped with a GSM/3G modem. An icon on the transmitter shows as the results are sent to the hospital. Pletikosić puts on his blood-pressure cuff, and the ▶

“With Ericsson’s equipment, we can add as many measurement instruments as we need”

Aleksandar Trbović



Marko Pletikosić and his girlfriend Marta Tomić feel a lot more secure now that Marko’s doctors can carry out long-distance monitoring of his health readings.

▶ result is transmitted in the same way. The entire checkup has taken just a couple of minutes.

Meanwhile at Magdalena Hospital, 100km away from Karlovac, one of five specially trained nurses receives a message from Pletikosić’s device on her computer screen. She examines his ECG curve and makes a medical assessment. As part of this process,

she then decides whether to call him and to let the doctor know the results.

Aleksandar Trbović, a doctor at Magdalena Hospital, says: “The idea behind m-health is that patients shouldn’t have to go to the health clinic or the emergency ward, but can instead continue with their everyday activities. It’s important to note that this technology also works in rural areas like the Croatian archipelago and other places that are difficult to get to, all over the world.”

The hospital has been using a basic remote healthcare system for 10 years, but now wants to replace its old analog technology.

“Different patients have different needs, and that’s why we need technology that’s more flexible,” Trbović says. “With Ericsson’s equipment, we can add as many measurement instruments as we need, and above all, we can work with Ericsson to develop the product further.”

The phones ring non-stop in the white room that serves as the hospital’s control center. Nurses are available around the clock to answer calls from worried patients who have questions about their cardiopulmonary conditions. Two or three times per month, the center gets a call that’s a matter of life and death.

“We once received a call from a patient whose pulse was 234bpm, and he

lost consciousness during the call,” says Head Nurse Milena Rukljač. “A doctor immediately contacted the nearest emergency ward, explained what we had seen in the patient’s m-health data and asked the medical staff at the ward to rush to the patient with a defibrillator. Later, the patient called to thank us for saving his life.”



Aleksandar Trbović



Boris Drilo

The majority of the hospital’s patients agree to use the mobile equipment, although sometimes they need a little convincing.

“Most of our patients are older and need some time to learn to use the technology,” Trbović says. “Some of them don’t even have mobile phones. But once we’ve explained the benefits, most of them are willing to try the new technology.”

From the hospital’s perspective, the biggest advantage of m-health is greater efficiency in the healthcare process because hospital stays are shorter. It also enables substantial cost-savings for society.

The only equipment the hospital needs to receive patient data is a computer with an internet connection. The pilot study will soon be expanded to include more patients, and the technology will be adapted for use with smartphones and tablets.

“In the next phase of the project, we’ll add functionality for video calls. The patient should feel that a video appointment is almost the same as a traditional appointment with their doctor at the hospital,” says Boris Drilo, Director of ICT Solutions for Industry and Society at Ericsson Nikola Tesla.

Trbović believes there are no limits to how m-health could develop.

“It will soon be possible to use this technology for other chronic illnesses,” he says. “I expect that, in the future, we will be able to use the internet to transmit data that’s even more advanced, meaning that it will be possible for m-health technology to evolve even more.”

Text: Anders Jinneklint Photo: Per Myrehed

OTHER HEALTH PROJECTS AT ERICSSON

MATERNAL HEALTH CARE IN TANZANIA. Ericsson is developing ICT solutions that will enable carers in rural Tanzania to perform tasks usually undertaken by doctors. These tasks include clinical audits, training and emergency support with a focus on maternal health. The goal is to reduce maternal and infant mortality. The project is a joint collaboration between Ericsson Research and Karolinska Institutet medical university in Stockholm.

CARE 2.0. Ericsson Research and the heart failure clinic at Linköping University Hospital have collaborated to produce the Care 2.0 platform. This makes it possible to integrate all solutions that offer remote health care as a cloud service for care providers. Discussions are underway with customers in the EU and US regarding Ericsson taking on the role of an intermediary between online patients and care providers.

COMPANY HEALTH CARE IN INDIA. A trial was carried out earlier in 2011 in which 237 Ericsson employees in New Delhi had checkups remotely through a health-care center in Bangalore, almost 2,000km away. Their results were transferred digitally and the employees were able to communicate with doctors via a video link.

Footnote: Read more in the article “Care on Call” on Contact online (intranet).

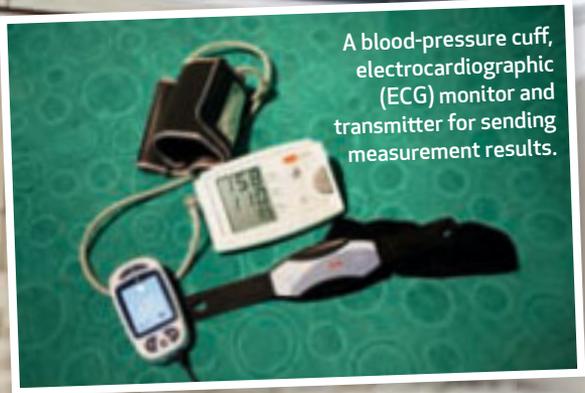
Milena Rukljač is a specially trained nurse at Magdalena Hospital. She handles consultations with patients and look at their test results. Here her computer dispalys electrocardiographic curves.



Did you know...

that it is already possible to monitor patients with diabetes and chronic lung diseases such as asthma, with the help of Ericsson's Mobile Health solution? The measuring equipment for diabetics includes a blood-glucose meter and scales.

Source: Ericsson Nikola Tesla



A blood-pressure cuff, electrocardiographic (ECG) monitor and transmitter for sending measurement results.



Ericsson first began manufacturing time recorders, also known as punch clocks or **time clocks**, in Austria, England and Sweden in 1922. Owing to capacity problems, all manufacturing was eventually moved to central Stockholm, Sweden's capital, where operations continued until 1967. The clocks being assembled in this photo are secondary devices that were part of a network of timepieces and punch clocks connected to a central time-keeping apparatus.

Source: The Centre for Business History



Text speak affects every1

The world's **first text message** was sent in 1992. Now, every day, we send billions of texts, using an **SMS "language"** that is constantly evolving.

Sms messaging has become such a success – and a key way of communicating – because it's cost-effective, easy and fast.

Mobile-phone subscribers the world over have adopted a maximum text length of 160 characters. And, according to IBM, more than 2 trillion text messages were sent and received in the 12 months ending in December 2010: an average of about 5.5 billion texts a day.

Texting between teenagers has been a key driver of sms traffic from the beginning. Teens adopted the service as their personal communication channel and have developed an entirely new language solely for sms use. In almost every country, young people have created a language of widely understood text shortenings. The abbreviations they create not only save time and money; they offer a way for teenagers to identify with one another using slang, and to create codes to confuse parents and teachers. A typical sms dialog could then sound like this:

1: r u cming 2moro nite?
2: Y?
1: cos sum1 said ur sick
2: OMG, I'm ok
1: k, don't 4get. CUL8R
2: b4nw

But the creation and use of sms language has led to a debate that has been raging for some time. Experts, teachers and parents all hold various conflicting opinions about whether texting is having a positive or negative effect on literacy levels among the young.

Nenagh Kemp, a psychologist at the University of Tasmania in Australia, has a background in conventional literacy and spelling skills, and has studied the effects of texting and sms in adults and children. She says she sees no evidence that "textisms" have resulted in any change in literacy levels.

"Conventional thought has led people to believe that textisms would cause the deterioration of people's understanding or use of the language, a dumbing down of society, but this isn't the case," she says.

In recent research on children, together with Psychology Honors student Catherine Bushnell, Kemp says the association that comes with the sms language is positive. She says that their research can't yet show whether texting improves spelling, but it's probable that writing and reading text messages help children play with sounds, letters and self-expression,



Nenagh Kemp

although this is when the child already has a good grasp of the language.

Kemp has also looked at a number of university exam papers, and has found hardly any of the words shortened on the thousands of pages written.

But even though recent research has not identified any negative side effects of texting, Kemp doesn't think this conclusively proves that there aren't any. "When you do a one-off study, it's hard to know," she says. "You don't see the long-term impact."

"The concern is: does someone who writes 'ur' know the difference between 'you're' and 'your'? From our research, we think they do. The problem arises when the person can't keep the two distinct languages apart."

Kemp has also been monitoring text-message use in first-year university students over three years, and says she has noticed that the traditional language of texting is changing.

The increase in the use of emoticons such as smileys has developed alongside the mobile phone and its improved graphics and interconnectivity with social media sites such as Twitter, as well as with e-mail and instant messaging.

"The introduction of the internet has made textisms on mobile phones and online ▶



1drfl

gr8

omg u2,
l8r!



Examples of SMS-shortening in other languages



“**dd**” for “didi” (little brother)
 “**jj**” for “jiejie” (big sister)
 “**plmm**” for “piaoliang meimei”
 (pretty little sister/young girl)



“**aa**” for “adios amigo”
 (goodbye, friend)
 “**nd**” for “nada” (nothing)
 “**saluz**” for “saludos” (greetings)



“**3vlig**” for “trevlig” (nice)
 “**bsdv**” for “bara så du vet”
 (just so you know)
 “**ngt**” for “någonting” (something)

Source: David Crystal's book *Txtng: the Gr8 Db8*.

► much more accepted because conventional language is allowed to move more freely in the writing of blogs, magazines and advertisements,” Kemp says.

“All of this is using language in a non-conventional way – it allows for a lot more freedom and self-expression. People are having fun with language.”

But will teenagers continue to use this sms language despite the increased use of BlackBerrys and other smartphones that make sending text messages easier?

Originally, the use of abbreviations saved time and money, as the cost per text was high, and the standard mobile-phone keyboard made writing complete words – even with predictive text – difficult. However, things have changed. Today, operators offer packages of unlimited texts per month, and smartphones provide users with access to a standard keyboard.

On the other hand, the proliferation of online social-media tools such as Twitter – an extension of sms that has a limit of 140 characters instead of the standard 160 – means that mil-

lions of people will continue to shorten words where they can.

“Even though there is an increase in the use of smartphones and access to a standard keyboard, I don’t think this will see the demise of the sms language,” Kemp says. “sms language is more to do with belonging to a group and being identified as understanding the language of that group.”

And this can be the case among children, students and those who have a particular area

of expertise. In telecommunications, engineering, marketing, accounting and so on, everyone has abbreviations they understand that are unique to that profession, and that is found globally across all languages.

“It’s a social bond; in any one group there might be a ‘cool’ way to shorten tomorrow,” Kemp says. “In one study I found people shortened it in 29 different ways.”

Text: **Sophie Bennett** Illustration: **Ebba Berggren**

Related studies:

Crystal, David; McLachlan, Edward (2008). *Txtng: the Gr8 Db8*. Oxford: Oxford University Press.

Ling, Richard; Professor at the IT University of Copenhagen, Denmark; Author of the soon-to-be-published book: *New Tech, New Ties: How Mobile Communication is Reshaping Social Cohesion* (MIT Press). He is also author of a book on the social consequences of

mobile telephony, entitled *The Mobile Connection: The Cell Phone’s Impact on Society* (Morgan Kaufmann).

Nenagh Kemp; Psychologist at the University of Tasmania: *Study finds link between children’s use of SMS and improved literacy*: <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2729.2010.00400.x/abstract>



CONTACT PLAY

On-demand content covering the latest Ericsson news and trends – in less than five minutes.



ERICSSON

Point to Point Communication

Instructions: Read the subject category and question. Start with the five-point question and continue to the right until you have an answer. When you have gone through all six categories and guessed a year for the picture below, calculate your total score and compare it with the maximum tally, which is 35.

Subject / Points	5 points	4 points	3 points	2 points	1 point
Culture/ Entertainment Which game for mobile phones?	This game was developed by Finland-based Rovio Mobile.	The first version of the game was launched in December 2009, for Apple iOS.	More than 12 million copies of the game have been purchased.	Players use a slingshot to shoot birds at pigs.	Who could have imagined that fierce fowl could become so popular?
Business Which corporation?	It was founded by Jerry Yang and David Filo in 1994.	Its headquarters are located in Sunnyvale, California.	In 2008, Microsoft placed a bid for the entire corporation.	The corporation shares its name with one of the creatures in the novel Gulliver's Travels.	Most people associate this corporation's name with an internet search engine.
Entertainment Which singer?	He was born on September 23, 1949, in the USA.	On the cover of one of his most popular singles, he is standing in front of a phone booth.	Point Blank and Pony Boy are two of his lesser-known songs.	Hungry Heart and The River are a couple of his best-known tunes.	His parents named him Bruce Frederic Joseph, but to most people he is known simply as "The Boss".
History Which year?	The world's first space shuttle, Columbia, was launched into space on April 12 of this year.	In August of this year, IBM began selling its first personal computer.	Reggae legend Bob Marley died on May 11 of this year.	On October 1 of this year, Nordic Mobile Telephony was launched.	In Roman numerals, this year is written MCMLXXXI.
Geography Which city?	This city is its country's second-largest and most industrialized settlement.	In the eighth century, the Moors conquered this city.	Freddie Mercury and Montserrat Caballé sung a duet about this city.	The Summer Olympic Games were held here in 1992.	The city hosts the annual Mobile World Congress.
Technology An invention	This microprocessor was one of the most significant new developments in GSM phones.	B-Netz, a German system, was the first to use this component.	This invention stores user information and can function independently of the phone.	Since 1991, this card's capacity has increased by a factor of 100.	The three letters in this card's name stand for Subscriber Identity Module.

The picture

Which year was this photo taken?

- 5 points for the right year
- 4 points for the year +/- 1 year
- 3 points for the year +/- 2 years
- 2 points for the year +/- 3 years
- 1 point for the year +/- 5 years

TURN THE PAGE FOR THE RIGHT ANSWER.

Culture/Entertainment: Angry Birds. **Business:** Yahoo. **Entertainment:** Bruce Springsteen. **History:** 1981. **Geography:** Barcelona. **Technology:** The SIM card. **Which year?:** Stockholm, 1984; the retail chain Ericsson City opens its doors, offering computers and business solutions.



PHOTO: ERICSSON ARCHIVE