

CONSUMERLAB



# SMART CITIZENS

How the internet facilitates  
smart choices in city life



An Ericsson Consumer Insight Summary Report  
November 2014

# CONTENTS

THE RISE OF SMART CITIZENS	3
MAKING INFORMED DECISIONS	4
BOTTOM-UP CHANGE	5
NOMADIC AND HEALTHY	6
TRADITIONAL PLAYERS TO DELIVER ICT SERVICES	7

## METHODOLOGY

This study was conducted online in September 2014 with 9,030 iPhone and Android smartphone users aged between 15 and 69. Respondents were from Beijing, Delhi, London, New York, Paris, Rome, São Paulo, Stockholm and Tokyo, representing 61 million citizens. Written statements outlining the concepts tested were rotated so that each respondent saw two thirds of all services.

## KEY FINDINGS



When city dwellers use the internet to make smarter, more informed choices, cities become smarter too. Smartphone owners in cities globally are now making this happen:

- > **76 percent** want sensors in public spaces that let them know what areas are crowded and best avoided
- > **70 percent** want to compare energy use with neighbors in order to optimize their behavior
- > **66 percent** want to have real-time control of drinking water quality

Citizens want to use their smartphones to alleviate concerns with health, communication with authorities and urban traffic:

- > **48 percent** would make daily use of a posture sensor
- > **29 percent** would use a unified biometric ID to access public services every day
- > **74 percent** want both interactive street signs and bike/car sharing

As these changes would be retro-fitted over existing structures, smart citizens want current players to internet-enable their services:

- > Information generated by public authorities should remain with the authorities
- > **28 percent** think authorities will not consider the individual's welfare and interests when using personal information

## VOICE OF THE CONSUMER

Ericsson ConsumerLab has close to 20 years' experience of studying people's behaviors and values, including the way they act and think about ICT products and services. Ericsson ConsumerLab provides unique insights on market and consumer trends. Ericsson ConsumerLab gains its knowledge through a global consumer research program based on interviews with 100,000 individuals each year, in more than 40 countries and 15 megacities – statistically representing the views of 1.1 billion people.

Both quantitative and qualitative methods are used, and hundreds of hours are spent with consumers from different cultures. To be close to the market and consumers, Ericsson ConsumerLab has analysts in all regions where Ericsson is present, developing a thorough global understanding of the ICT market and business models.

All ConsumerLab reports can be found at:  
[www.ericsson.com/consumerlab](http://www.ericsson.com/consumerlab)

# THE RISE OF SMART CITIZENS

The idea of smart cities is an intriguing concept. However, the future will partly be a story of how the architects defining the way our future cities operate are going to be citizens themselves. As the internet makes us more informed, we are in turn making better informed decisions.

We are becoming smart citizens and through our changing behaviors, efficient practices and smarter social norms are developing in our cities.

We have looked at three different concepts that will enable people to take a more proactive and participatory role in city life.



As citizens

## TURN SMART

so will the cities they inhabit

> COMPARING DAILY ENERGY USAGE



70%

of smartphone owners want to compare daily household use of gas, electricity and water with their neighbors.

> TRAFFIC VOLUME MAPS



76%

want sensors in streets, pavements and public areas to report how crowded a street, shopping mall or park is.

> WATER QUALITY CHECKER



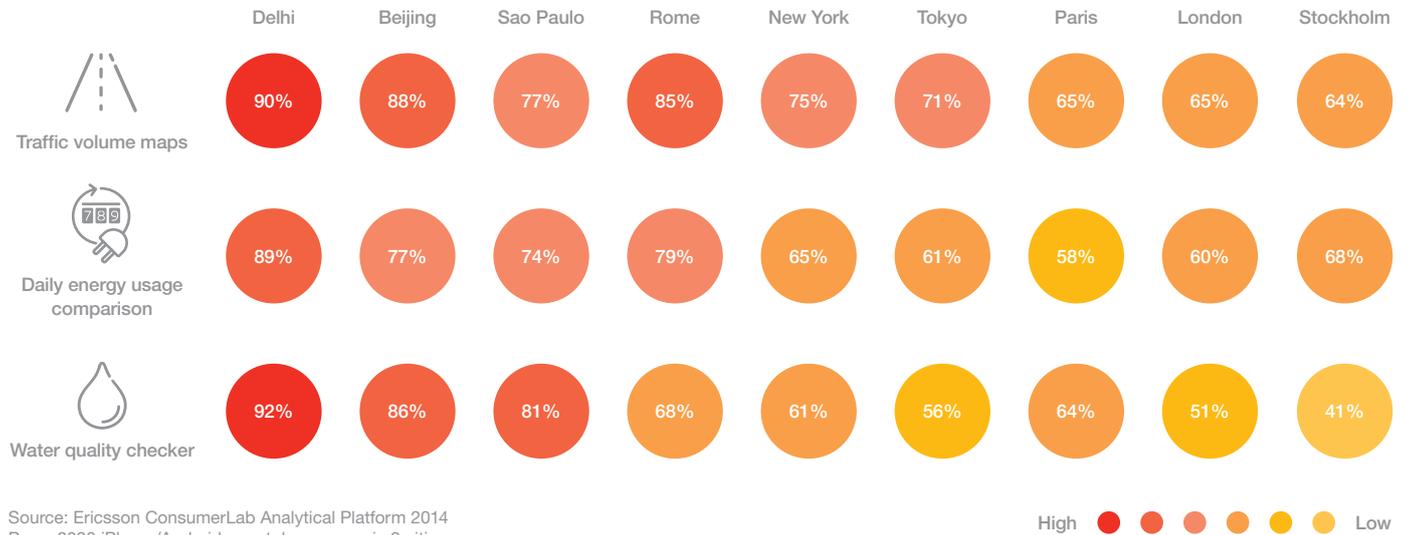
66%

say a smartphone that checks the water quality of public facilities and compares it with similar facilities nearby would be useful.



# MAKING INFORMED DECISIONS

Figure 1 – Usefulness of concepts



Traffic volume maps are seen as the most useful concept amongst city dwelling smartphone users. This concept is also the one predicted to have the highest frequency of use if it were to be made commercially available. Still, 25 percent of those surveyed say they would also compare their energy use with their peers every day in order to reduce their bills.

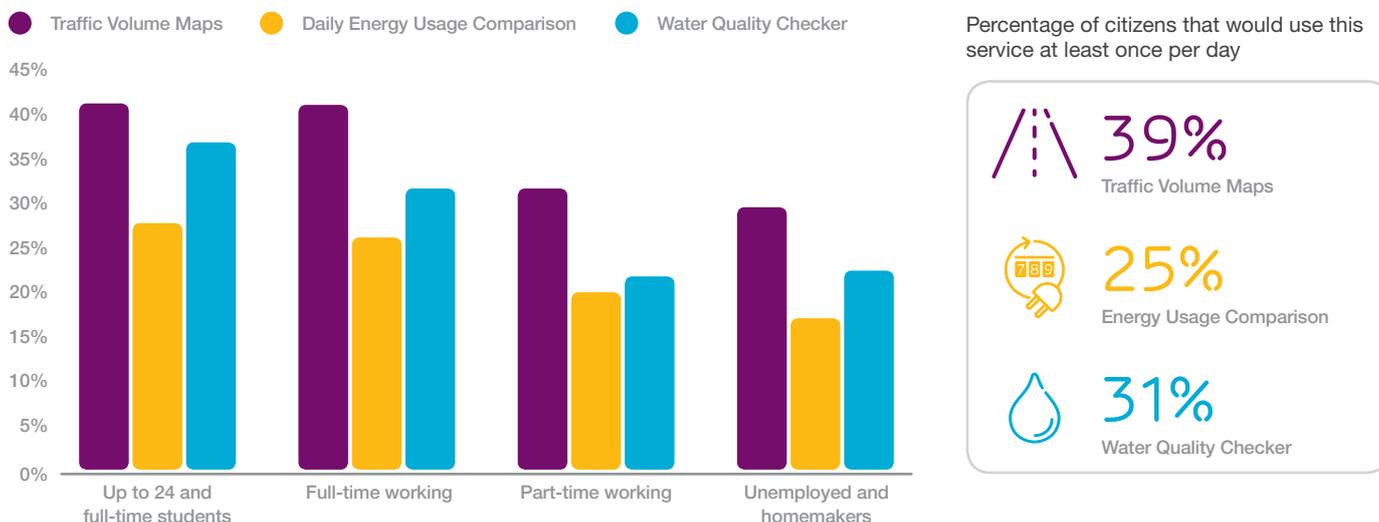
Figure 1 demonstrates that the water quality checker has the overall highest and lowest popularity ratings, depending on the geography and infrastructure development of the different cities in which people were surveyed. A whopping

92 percent of Delhi citizens find the concept useful. However, only 41 percent in Stockholm – a city known for its great drinking water quality – find the concept to be of use.

Figure 2 shows that the young and full-time workers are those with the overall highest predicted daily use of these concepts, and the ones who will most actively push cities to grow smarter.

**25 PERCENT**  
want to compare their energy use with their peers every day

Figure 2 – Predicted usage at least once per day



Source: Ericsson ConsumerLab Analytical Platform 2014  
Base: iPhone/Android smartphone users in nine cities who thought concepts were useful

# BOTTOM-UP CHANGE

In 2011 and 2012, Ericsson ConsumerLab conducted two online surveys across a total of 27 major cities around the world. We asked consumers to rate their satisfaction with 30 aspects of city life. The traffic situation and the mechanisms for communication with city authorities currently open to them turned out to cause citizens more dissatisfaction than anything else. Aspects of health and care services were also cause of concern for many. In 2013, a follow-up study called 'Smartphones change cities' found that consumers to a great extent look to internet services in order to alleviate some of the frustrations they have about modern urban living.

As citizens continue to use the internet in order to ease their frustrations, we see this as a powerful bottom-up push for change. Here we look at nine further concepts for how that evolution may happen.



## HEALTH AND CARE CONCEPTS



### Heart-rate monitoring ring

Syncs with phone and alerts when heart rate is in danger zone. 72 percent would find this useful.



### Digital health network

69 percent want their smartphones to collect medical stats that physicians can access.



### Posture sensor

Gives cues about spine position and injury risks. 65 percent of respondents said they would find this useful.

## COMMUNICATION WITH AUTHORITIES CONCEPTS



### Track of the city

62 percent want an app that creates a guided, storytelling live city experience.



### Unified biometric id

A personal ID that gives access to all public services. 68 percent would find this useful.



### Public service queue tag

Optimizes queue orders when you have multiple appointments. 69 percent think this would be a good idea.

## TRAFFIC CONCEPTS



### Interactive road navigation

74 percent would find interactive arrows on roads and pavements useful.



### Social bike/car sharing

74 percent would find an app that locates vehicles that one can use and leave anywhere in the city useful.



### Indoor directions

73 percent would want their smartphones to guide them while inside libraries, hospitals, government offices, etc.

# NOMADIC AND HEALTHY

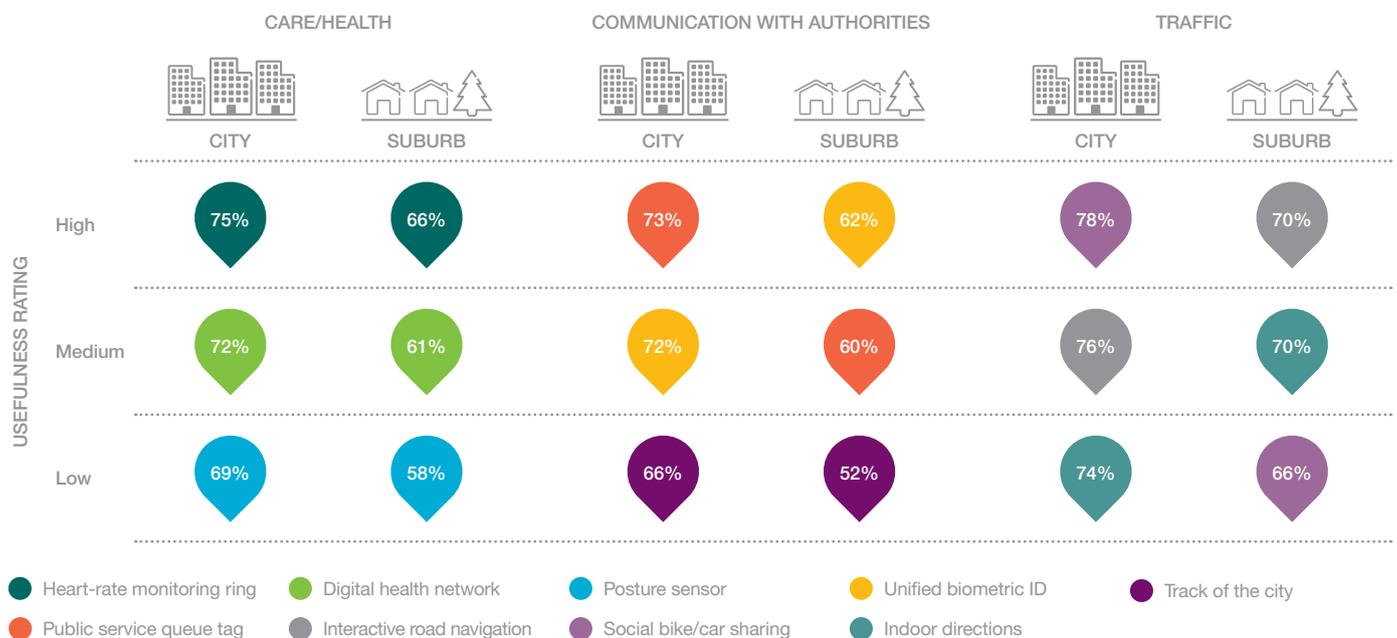
Those living in the surveyed cities are on the whole more open to using ICT to address issues with city life than those living in the suburbs.

Although the traffic concepts are seen as the most useful, it is actually health-related services that would be used the most frequently by consumers if they were to be made commercially available (figure 4). 48 percent of those surveyed say they would use a posture sensor on a daily

basis, and 42 percent think that a heart rate monitoring ring would be useful enough to warrant continuous use.

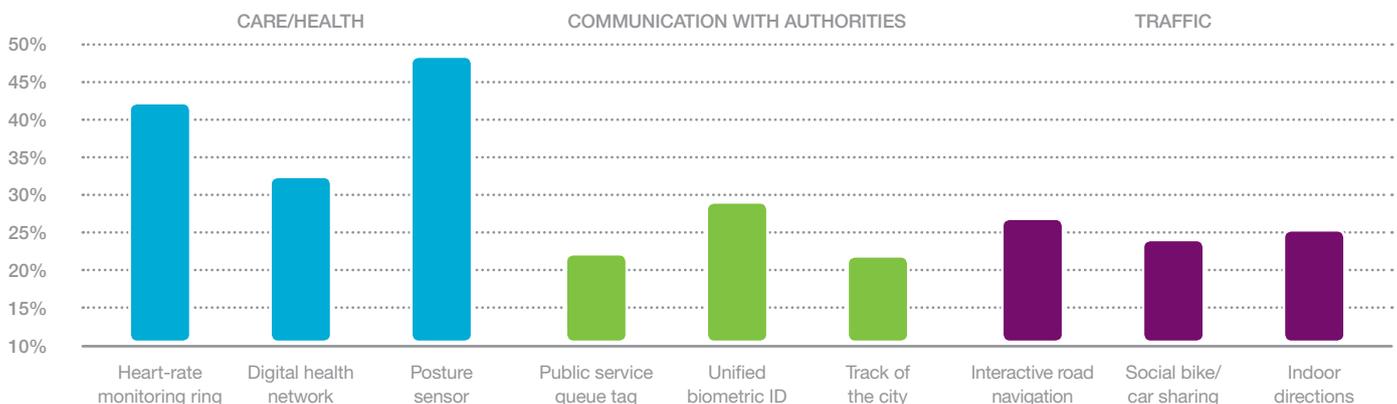
However, 29 percent of respondents also predict they will use a unified biometric ID to access public services every day, and 27 percent see themselves using interactive road navigation on a daily basis. These also seem like high frequency ratings given the nature of those services.

Figure 3 – All services are seen as potentially useful



Source: Ericsson ConsumerLab Analytical Platform 2014  
Base: 9030 iPhone/Android smartphone users in 9 cities

Figure 4 – Predicted use at least once per day. Health and care-related services will be used the most



Source: Ericsson ConsumerLab Analytical Platform 2014  
Base: iPhone/Android smartphone users in 9 cities who thought concepts were useful

# TRADITIONAL PLAYERS TO DELIVER ICT SERVICES

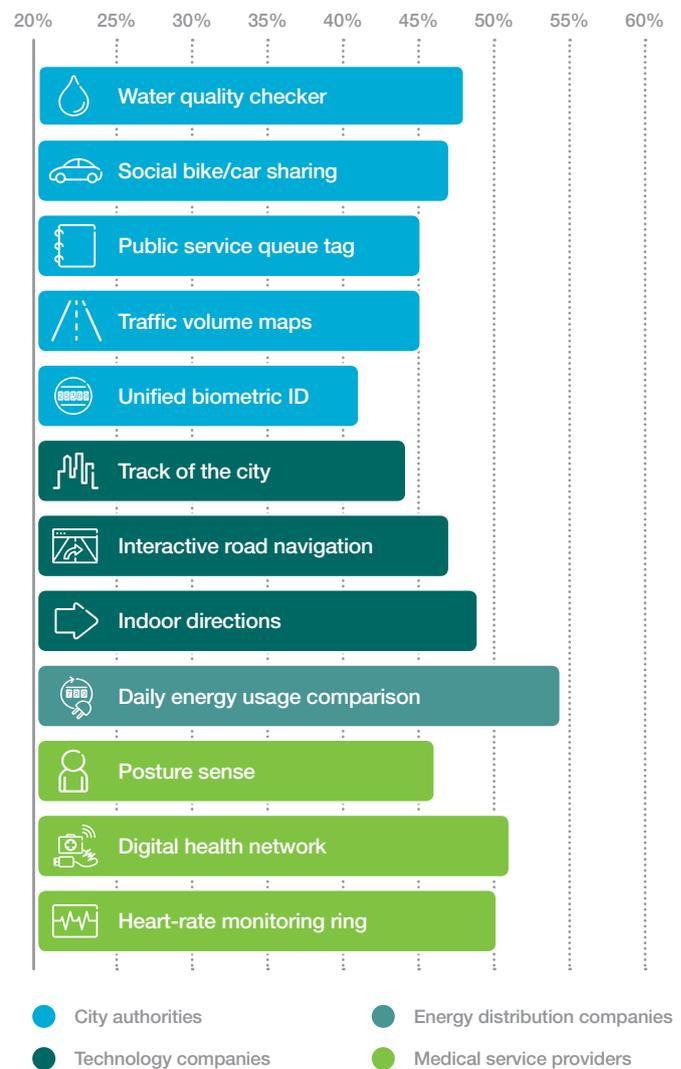
The concepts tested in this study will clearly have a high impact on everyday city life. For this reason, city dwellers may feel these services are too important to be placed in the hands of the next tech startup with a bright idea. Although there is definitely lots of room for tech companies, people want to see traditional providers of services in these important everyday life areas provide the added benefits that internet can deliver.

Thus, 45 percent or more see city authorities as the main provider of a water quality checker, social bike/car sharing and public service queue tags. 54 percent see energy companies as the natural providers of energy use comparison services, and 46 percent or more see medical companies as the main providers of the internet based health services that we tested.

Smart citizens are increasingly aware that the information they generate will be shared and most want the information generated by public authorities to remain with the authorities. Figure 6 shows that, whereas only 28 percent think authorities will not consider their welfare and interests when using personal information, a full 66 percent still want control over how authorities share their information. As a consequence, only 19 percent of respondents agree that it is acceptable for authorities to forward personal information on to third party companies.



Figure 5 – Who is expected to be the main provider of these services?



Source: Interactivity Study, Ericsson ConsumerLab Analytical Platform 2014  
Base: iPhone/Android smartphone users who predicted that the concepts will be available within five years

Figure 6 – Authorities and personal information



Source: Ericsson ConsumerLab Analytical Platform 2014  
Base: iPhone/Android smartphone users in nine cities

Ericsson is the driving force behind the Networked Society – a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, businesses and societies to fulfill their potential and create a more sustainable future.

Our services, software and infrastructure – especially in mobility, broadband and the cloud – are enabling the telecom industry and other sectors to do better business, increase efficiency, improve the user experience and capture new opportunities.

With more than 110,000 professionals and customers in 180 countries, we combine global scale with technology and services leadership. We support networks that connect more than 2.5 billion subscribers. Forty percent of the world's mobile traffic is carried over Ericsson networks. And our investments in research and development ensure that our solutions – and our customers – stay in front.

Founded in 1876, Ericsson has its headquarters in Stockholm, Sweden. Net sales in 2013 were SEK 227.4 billion (USD 34.9 billion). Ericsson is listed on NASDAQ OMX stock exchange in Stockholm and the NASDAQ in New York.

The content of this document is subject to revision without notice due to continued progress in methodology, design and manufacturing. Ericsson shall have no liability for any error or damage of any kind resulting from the use of this document.