



ERICSSON

NETWORKED SOCIETY CITY INDEX

Part III: Triple bottom line benefits for city business





CONTENTS

The Networked Society City Index aims to develop a comprehensive evaluation of cities' ICT maturity and their social, economic and environmental development. In a series of reports we have analyzed 25 urban areas around the world from a city, citizen, and now, a business perspective.

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EXECUTIVE SUMMARY

This report is the third and final installment in the Networked Society City Index series analyzing ICT-driven benefit creation in the world's largest cities. The first two studies, conducted in collaboration with the consultancy firm, Arthur D. Little, focused on benefits provided to cities and citizens, while the focus of this final report is on business.

As with the previous studies, this index continues to show a strong correlation between ICT maturity of the city and the triple bottom line of economic, social and environmental development. Few cities are found outside the trend line of ICT-generated triple bottom line benefits, and there is no evidence that triple bottom line benefits decrease even as ICT maturity increases. This implies that even the most ICT-mature cities can still benefit from continued investment in ICT.

In this analysis, New York is the top overall ranking city followed by Stockholm, London and Singapore. New York has the advantageous combination of favorable business conditions, ease of doing business, clear legal frameworks, collaboration between business and academia, as well as a fast growing digital economy. It has the highest overall scoring in social and economic dimensions, and is among the top three cities in the environmental dimension.

Comparing the three perspectives of city, citizens and

business reveals an interesting pattern of benefit creation. Our data indicates that development as a result of ICT maturity is initially driven by individuals rather than by city institutions or businesses. Individuals and social networks appear to embrace opportunities associated with ICT and innovation more quickly. City institutions adapt – as the behavior of their citizens changes – and are positioned to drive socioeconomic and environmental progress. Businesses too are willing to adopt ICT innovation for internal efficiency purposes but are still hesitant to make profound transformational changes.

The aim of all three City Index reports has been to develop a comprehensive city index capturing triple bottom line benefits of ICT from three different perspectives: city, citizens and business. The focus of this study is on the third perspective – benefits of ICT for business in the city.

In preparation of this report, we collaborated with The Swedish Trade Council and Urbanity Labs AB.





NETWORKED SOCIETY

CITY LIFE

Today, more people live in cities than in rural areas, and by 2050, about 70 percent of the world's population is expected to reside in urban areas. Virtually all global population growth is occurring in cities, while urban areas in the developing world are absorbing the majority of this growth. This presents enormous challenges but also tremendous opportunities.

Cities consume the majority of our planet's resources but are also centers of innovation, exploring new ways to more effectively use those resources. These advances, many led by businesses in the private sector, are resulting in major economic, environmental and social benefits.

The United Nations has presented the global community with a bold challenge – create more sustainable cities that will also continue to be engines of prosperity. Here, ICT is playing a central role. The sharp uptake of mobile broadband and new digital services has started to fundamentally change the way cities and their business sectors operate, evolve, and eventually, will transform. Technologies such as mobility and the cloud are rapidly being integrated into the core processes of many industries, while sharing of data across enterprises and in city infrastructure has become increasingly more common.

City businesses – including utilities, transportation, education, health care, retail, government, finance, culture and entertainment – are all facing a fundamental shift in the way consumers demand and purchase their products and services.

New media services and business concepts such as smart grids, intelligent traffic and e-health, are examples of recent responses to this new landscape. Governments and leaders in society recognize that connectivity along with ICT policy, literacy, and sustainable business models are all crucial in order to create a positive climate for innovation and business.

ABOUT THE STUDY

Ericsson aims to contribute to and inspire the development of networked cities around the world. The Networked Society is at the forefront of this development, successfully using ICT as a tool to drive triple bottom line development.

For this series we selected 25 large cities for in-depth study. The selection was made based on the United Nations list of the world's largest cities, with the addition of two capitals from the World Economic Forum's Networked Readiness Index. This addition was made to ensure that cities with strong ICT development are captured in the study.

We recognize the importance of an effective policy framework in the sustainability arena but this is not the intention of this report. This is not a scientific study either. Rather, this is an invitation to explore the link between ICT and triple bottom line development in city environments. It is the hope and intention that this series of reports will inspire city mayors, decision-makers and enterprises to create stimulating city environments and set positive change in motion with the help of ICT.

OUR ECONOMY TRANSFORMED

The internet is transforming many aspects of the global marketplace – from consumer behavior to new business models and processes. Mobility, cloud computing services, broadband, big data and social media are at the center of the transformation that is occurring in both developed and emerging economies.

ICT has become an integral part of our working and living environments and will continue to be an important resource for business, government and society at large. By combining information, knowledge, processes, and technology, ICT is driving efficiencies and fuelling innovation – and will play a crucial role in helping organizations of all sizes to connect, collaborate and compete more effectively.

A 1 percentage point increase in broadband penetration increases new business registration by 3.8 percent.

Source: Broadband and Entrepreneurship, Carlén and Zhou, Stockholm School of Economics

ICT-driven transformation

The changes that our society is going through – particularly those in business – are being driven in large part by ICT. The initial benefits are improved development and production efficiencies but as we move forward, these technologies will have more transformative implications.

The general public's increased ability to use information services and apply ICT is accelerating this change.

Today we are living in a society shaped by different networks – information networks, social networks, and networks of things. Their existence is not new, but the role that they are playing is more significant now than ever before. We depend on networks to enable the applications and technology we use on a daily basis. Because of this development, new markets have opened up with radically different business propositions and an increasing demand for connected products that have richer benefits and greater flexibility.

Over the next five years, many sectors – including technology, telecommunications, entertainment, media, banking, retail and health care – will continue to be reshaped by the application of ICT into their business.

The constantly changing global marketplace, fuelled by high-growth economies and new technology, has accelerated the speed of business activity from product development to customer response. Real-time business intelligence and predictive analysis is required not only for faster decision-making but to cope with unexpected market risks and opportunities.

THE BUSINESS PERSPECTIVE

The relationship between ICT and economic development is a widely researched area and there are numerous academic reports and case studies that support the positive correlation between ICT and economic development.

A series of reports from Ericsson and Arthur D. Little concluded that for every 1,000 new connections, 80 new jobs are created, and for every 10 percent increase in mobile and broadband penetration, GDP increases by 1 percentage point. One of these reports studied the socioeconomic effects of broadband by examining 33 OECD countries between 2008 and 2010. It was found that doubling connection speeds yields a 0.3 percentage points increase in GDP.

Similarly, the Broadband and Entrepreneurship report by the Stockholm School of Economics looked into the correlation between broadband and entrepreneurship in 23 OECD countries between 2004 and 2009. It concluded that a 1 percentage point increase in broadband penetration increases new business registration by 3.8 percent. The benefits of ICT in this case are an increased number of entrepreneurial opportunities, improved market access for entrepreneurs and reduced transactional costs, as well as reduced costs for starting a new business.

The increasing demands of a global and digital marketplace is pushing firms to move away from traditional hierarchical forms of decision-making and toward a more organic, networked-based structure. Several new factors are driving a clear shift in how we now define the concept of work in this new marketplace:

- > **Digital natives** – In the next decade a new workforce will enter the labor market. Their lifestyle is characterized by greater individual freedom, openness to mixing work and private life and a tendency to challenge established ideas and authority. This means that organizations that want to attract talent must foster a culture of openness, creativity and innovation. At the same time, they must also take advantage of the experience and knowledge of their current workforce.
- > **Greater flexibility** – The modern workforce sees their work as more than just a paycheck. Workers today demand more flexible working environments. Here, ICT can help employers adapt to these new demands.
- > **Adapted behavior** – Changing behaviors and fostering innovation and entrepreneurship are some of the hallmarks of ICT.

Entrepreneurship is a powerful force in urban development, and there is a strong connection between entrepreneurial activity and urban success. The environment for entrepreneurship and innovation is enhanced by ICT. By providing people with tools and infrastructure to make it easy for them to start a business, ICT nurtures innovation and helps people to realize their ideas for new companies, products and services. Finally, it provides access to a market far greater than what was previously possible for start-ups.

These findings, along with a body of previous research, both empirical and scenario-based, highlight the positive link between ICT and socioeconomic development. Some of the specific conclusions include:

Increased number of entrepreneurial opportunities:

- > enables new product innovations such as music and video streaming, e-commerce and cloud services
- > enables new business models such as advertising-funded services

For every 10 percent increase in penetration rate, GDP increases by 1 percentage point.

Source: Ericsson and Arthur D. Little, 2010-2011

- > facilitates the discovery of new opportunities by shortening the distance between potential entrepreneurs and their network.

Improved market access:

- > enables entrepreneurs to reach a larger geographical market
- > enables specialized niche firms to reach critical mass markets.

Reduced transaction costs between firms:

- > helps reduce the costs for obtaining products and services externally
- > reduces the need to be located geographically close to suppliers, partners and customers
- > increases access to information about potential counterparts
- > increases transparency of market prices, which in turn leads to increased market efficiency
- > directly impacts entrepreneurs by making it cheaper and easier to obtain critical resources externally
- > increases outsourcing activity in established firms.

For every 1,000 new connections, 80 new jobs are created.

Source: Ericsson and Arthur D. Little, 2010-2011



ENVIRONMENTAL BENEFITS FOR BUSINESS

For decades we have understood the potential of ICT to drive change and stimulate environmental progress in society. For example, the Smart 2020 report from the Global e-Sustainability Initiative looks at ICT's potential impact on climate change.

The report concludes that ICT can reduce CO₂ emissions by up to 15 percent in 2020. Progress has been made already in the areas of policy and with concepts that generate positive environmental results, but so far, adoption and large-scale changes in behavior have been limited.

One major challenge is that increased economic output (GDP) and increased consumption are typically associated with adverse environmental impacts. Comprehensive measurements that include indirect environmental impacts also reveal that increased local consumption results in increased environmental strain elsewhere in the world.

However, in contrast to many traditional infrastructure investments, ICT, and specifically broadband, can actually help reduce the environmental impact of social and economic activity. In its report, The Broadband Bridge – linking ICT with climate action for a low-carbon economy, The Broadband Commission identifies three areas where ICT can positively impact climate change:

- > **Transformation:** helping other sectors of society to reduce greenhouse gases through dematerialization of physical products and systems.
- > **Climate mitigation:** reducing the ICT sector's own emissions, for example by developing energy-lean products and solutions, and setting and delivering on tough reduction targets.
- > **Climate adaptation:** changes in processes, practices and structures to reduce the vulnerability of natural and human systems to the effects of climate change. Broadband can provide viable solutions, for example, weather information and disaster alerts.

For economies that are growing, it is important to note the risk of “rebound effects.” For example, the gains in productivity that result from incorporating ICT into production and logistics may lead to decreased retail prices. This in turn could increase consumption and thereby increase consumption-related emissions. To counteract this “rebound effect,” cities must employ a comprehensive ICT strategy that creates the required incentives and initiatives that encourage citizens to change their consumption patterns and reduce their total impact on the environment.

A supporting policy framework is needed for benefits to be realized. That is why, together with the World Wildlife Federation, Ericsson has produced a five-step plan to help policy-makers make the necessary shift towards a low-carbon economy.

In addition to this plan, there is a large and well-grounded global base of research – including studies and cases – that explores the effects of ICT on society. Ericsson regularly investigates and analyzes this research.

THE ICT POTENTIAL TO REDUCE EMISSIONS

The Smart 2020 report concludes that ICT could deliver approximately 7.8 GtCO₂e of emissions savings in 2020. This represents about 15 percent of emissions reductions in 2020 based on a “business as usual” estimation. The Smart 2020 report also shows that ICT-enabled energy efficiency translates into approximately EUR 600 billion in energy savings.



NETWORKED SOCIETY CITY INDEX

The Networked Society City Index is a framework designed to provide city mayors, local authorities and decision-makers with information and benchmark material regarding their city's ICT maturity, as well as the city-wide triple bottom line return on ICT investments.

City stakeholders will gain valuable inspiration from successful ICT initiatives around the world. By sharing this knowledge, Ericsson aims to contribute to the understanding of ICT as an important enabler for growth, infrastructure and triple bottom line development for metropolitan areas.

The Networked Society City Index provides a map of world cities and their progress. The index is designed to describe the development status of cities worldwide in terms of their ICT maturity and triple bottom line effects derived from ICT.

The environmental benefits of ICT are particularly challenging. This is in part due a lack of established and globally agreed methodologies for assessing the ICT contribution. In addition, many new solutions – such as smart grids and intelligent transportation – are in the early stages of implementation, so their achieved large-scale impacts have been hard to assess.

A total of 28 indicators have been used to measure the total benefits in the index. These indicators can be categorized into two dimensions:

> **Cities' ICT maturity**

The ICT maturity dimension is determined by availability and performance of ICT infrastructure; or the cost at which services are provided and their actual usage levels. The logic and design is similar to the Network Readiness Index published annually by the World Economic Forum, but with a more direct focus on measurable ICT maturity and less on prerequisite components. A total of 14 indicators capture the ICT maturity dimension.

> **Triple bottom line benefits from ICT investments**

A city's triple bottom line benefits from ICT are evaluated on three different levels: social, economic and environmental. For each of these dimensions, important indicators related to business activities within the city context have been chosen and weighted together to reflect a total measure of triple bottom line benefits derived from ICT investments in a particular city. Each indicator has a logical connection to ICT investments and the usage of ICT, and is chosen to capture the main conclusions from previous analysis and Ericsson research on benefits related to ICT.

ICT MATURITY CLUSTERS

Cities located in Northern Europe, North America and parts of East Asia have a longer track record of investing in ICT and consequently score higher in the maturity dimension. Singapore, Stockholm and London lead among highly mature cities, while Sydney, Buenos Aires and Istanbul lead among moderately mature cities. Jakarta, Dhaka and Karachi top the list of less mature cities.

The business index

The business index has been calculated using the same methodology as in the previous Networked Society City indexes. It uses proxies to measure a selection of indicators. This means that it does not capture all the complexities of each society nor does it claim to be scientific proof. The aim of these reports, rather, is to provide a common sense perspective on how successful each city has been in using ICT to enable businesses to thrive.

Triple bottom line is a standard for urban and community accounting. It provides a comprehensive measurement of a city's success by examining its progress on three different levels: social, economic and environmental.

The current city index is least developed in the environmental dimension of the triple bottom line. The data looks at a few proxies that capture ICT's potential for creating economic growth with nominal environmental impact, as well as environmental indicators at the city level. For the social and economic dimensions, the variety of the proxies used is well balanced and the data is both recent and of good quality.

The proxies for the different dimensions of the triple bottom line can be grouped in the following way: 11 proxies are related to the social dimension, 10 proxies are for the economic dimension, and seven are proxies for the environmental dimension.

The index is based on data that varies in scale. For example the Foreign Direct Investment indicator can be as high as hundreds of billions of US dollars, while the Private Sector Growth Rate is at most a couple of percent. For this reason, the data for every proxy is normalized before the index is calculated to make each proxy of equal weight. This ensures that no proxy gets a preference in the index. In the total Y-axis score, social, economic and environmental proxies are weighted as one-third each. The overall index is calculated equally on the X and Y axis.



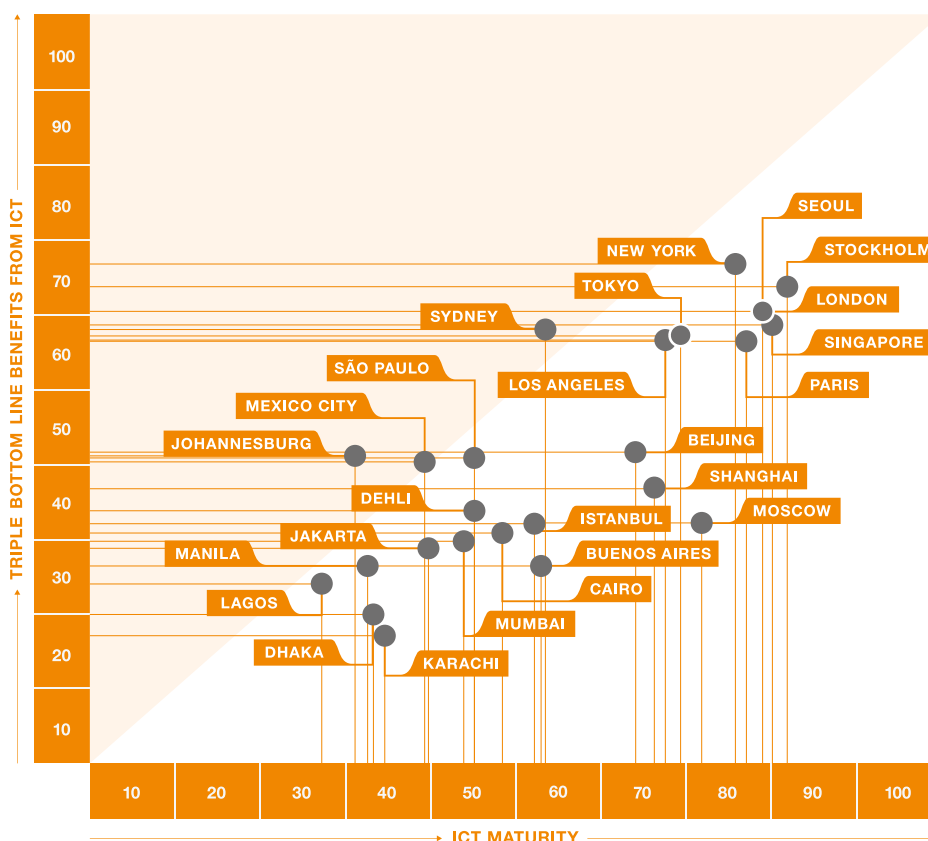
KEY RESULTS

In the previous City Index reports, Ericsson looked at ICT-generated benefits from the cities' and citizens' perspectives. This study now explores the benefits from the business perspective.

This study covers 28 indicators that analyze business life in 25 cities around the world. The selection of cities remains unchanged from the preceding reports and covers some of the world's largest cities with an emphasis on geographical and economic diversity, as well as on ICT leadership.

The cities studied in this report represent a broad geographical selection but are also spread across the ICT development curve. Cities located in Northern Europe, North America and parts of East Asia have a longer tradition of producing and using ICT equipment, and have therefore been able to benefit from their investments over longer periods of time. This can be seen in the Networked Society City Index, where cities with a combination of high-ICT maturity and ICT leverage (return on investments) generally fall within these geographical areas.

Figure 2: The Business Index
All 25 cities have been plotted according to their ICT maturity (X axis) and the corresponding triple bottom line benefits from ICT to city business (Y axis). The data has been normalized to account for the large variation in values. The best performing city in each proxy may receive a maximum of 100, while the lowest performing city can receive a minimum of 1.



Rank	City	Score
1	NEW YORK	52.1
2	STOCKHOLM	51.9
3	LONDON	48.7
4	SINGAPORE	48.1
5	SEOUL	47.9
6	PARIS	44.1
7	TOKYO	40.3
8	LOS ANGELES	38.2
9	SYDNEY	31.7
10	BEIJING	27.2
11	SHANGHAI	25.1
12	MOSCOW	24.4
13	SÃO PAULO	18.3
14	ISTANBUL	17.1
15	MEXICO CITY	16.1
16	DELHI	15.4
17	CAIRO	14.9
18	BUENOS AIRES	14.2
19	MUMBAI	13.1
20	JOHANNESBURG	12.7
21	JAKARTA	11.6
22	MANILA	8.7
23	DHAKA	6.7
24	LAGOS	6.6
25	KARACHI	6.0

New York is the top overall ranking city followed by Stockholm, London and Singapore. New York has the advantageous combination of favorable business conditions, ease of doing business, clear legal frameworks, collaboration between business and academia, as well as a fast-growing digital economy. It has the highest overall scoring in social and economic dimensions, and is among the top three cities in the environmental dimension.

Together, New York, Sydney and Johannesburg exhibit significantly improved ratings compared with previous Network Society City Index reports. One reason may be their leading role in business, both regionally and globally.

A combination of eight cities – Singapore, Seoul, New York, Stockholm, London, Tokyo, Paris and Los Angeles – lead across all three indexes. They represent mature economies that are focused on services and that are progressing towards digital economies. All eight cities have in common reliable network infrastructure, initiatives that take advantage of ICT, and a clear regulatory framework that supports triple bottom line benefits.

Buenos Aires and Seoul are performing relatively less favorably in the business ranking compared with the previous City Index reports. To change this, these two cities may consider an increased focus on entrepreneurship, industry and university collaboration, as well as efforts to attract foreign investment.

The cities of Istanbul, Mexico City, São Paulo and Manila all score in the mid-range. All of these cities face tough, quality-of-life challenges with congested city centers, long commuting times and a need for improved efficiency. Here, initiatives that prioritize necessary development in combination with improved ICT infrastructure performance are crucial.

In fast growing cities, a combination of issues can actually hinder cities from taking advantage of ICT-driven triple bottom line benefits. These include lower education levels and infrastructure issues like planning of roads, water and power supplies. Some of these issues may help explain why certain cities score lower in this study. However, examples such as the mobile-money implementation in Kenya prove that once basic infrastructure is improved, major benefits can progress quickly.

Based on the quantitative data and qualitative analysis, the following conclusions can be made:

Businesses benefit from ICT investment

The City Business Index clearly shows a continued strong connection between ICT maturity and triple bottom line development. Few cities are found outside the typical trend line of ICT-generated triple bottom line benefits. The trend line clearly represents the development path towards the networked city. Additionally, this index confirms that increased ICT maturity enhances triple bottom line leverage at the same pace all along the development path. There is no sign of decline in triple bottom line benefits for cities with greater ICT maturity, implying that even the most ICT-mature cities would benefit from continued investment in ICT.

Individuals are the first to embrace innovation

Benefit creation starts and is initially driven by individuals rather than institutions or corporations. Individuals and groups appear to be able to transform more quickly as a result of innovation and efficiency initiatives. For business, this strengthens the need to attract highly-skilled people who can handle and understand new technologies and apply technology toward new business practices.

KEY RESULTS (CONTINUED)

ICT strategy drives entrepreneurship

High-performing cities typically have several things in common, such as well-developed strategies and implementation programs that drive efficiency, innovation and entrepreneurship. Collaboration between business and academia and extended support for start-up business are also common factors. These developments typically follow an initial focus on rationalized city operation and improved services for citizens.

Cities encourage entrepreneurship by reducing red tape and ensuring access to capital and affordable incubator space, as well as fostering public-private partnerships that diversify the local economy and develop the workforce.

The New York City Economic Development Corporation (NYCEDC) opened 16 business incubators across the city in an effort to support entrepreneurship and to encourage start-ups to locate and thrive in the city.

Businesses benefit from clear legal and fiscal frameworks

Businesses benefit from ICT when there are clear legal and fiscal frameworks, simple and fast procedures and predictable conditions – especially in cities with lower ICT maturity. Connecting a city's knowledge-based institutions with universities and other industries will also increase innovation and new-idea generation.

In its annual Doing Business report, The World Bank

measures business regulations and their enforcement across 185 economies. The report analyzes indicators such as how easy it is to start a business, set up electricity, deal with construction permits, pay taxes or acquire cross-border trading contracts. For example, in Johannesburg, digital initiatives aimed at simplifying the process of setting up a new business online stand in contrast in the report to the city's unreliable broadband connectivity and frequent power outages.

The city of São Paulo in Brazil introduced electronic tax forms to decrease paper use, stem corruption and simplify the process for registering business transactions.

This report finds that fiscal incentives and encouragement for small-firm networking and clustering are more useful than direct support. In general, evidence shows that cities with a high concentration of colleges and universities are more likely to have increased entrepreneurial activity (Maddock and Viton, 2008). Other initiatives – such as creating centers of excellence within research and development – are also important. More critical however is the need to invest a larger share of public funds in applied research. By doing this, businesses in cities can benefit from university and public research efforts.

Progress in all of these areas will create a more attractive environment for innovation and creativity.



Global reputation is important

One effect of globalization is an even higher trans-national mobility of the creative elite and talents of tomorrow. In this new era, the top performing cities are competing with each other to attract the best brains and entrepreneurs. In his book, *The Rise of the Creative Class*, author Richard Florida describes a new group of citizens who are moving from traditional worker societies or financial centers to creative centers. This new creative class is impacting how cities market themselves and their core strengths.

Top performing cities such as New York, Tokyo, London, Singapore and Los Angeles all share one thing in common – a well-established position in global business. It is therefore possible to conclude that successful city development is not just about creating a good environment for local or regional businesses – but for global ones too. It's about setting a direction for industrial development, incorporating the effects of digital transformation, and creating a clear agenda and a positive business environment. Changes in policy, regulation and planning, access to financing, research, and encouragement for risk-taking are some of the key levers that will drive progress.

In 2009, the Singapore Energy Market Authority launched the **Intelligent Energy System**, which aims to modernize transmission and electricity distribution through new information, communication and sensor technologies.

London's Business Boot Camp gives entrepreneurs the chance to develop the skills needed for building successful businesses in sectors that range from digital to fashion, hospitality, entertainment, creative and biotech.

Societal transformation still lies ahead

Despite the long-term use of ICT in business, efficiency gains and increased economic output have largely been constrained to current industry boundaries. However, ICT initiatives in cities such as Stockholm (Royal Seaport), Moscow (Skolkovo) and Seoul (Songdo and Sejong) have proven that fundamental change and transformation across industries is possible. These projects share a common ambition to apply ICT in transformative ways and to develop radically new solutions to current city challenges. They hold great potential for boosting business output through ICT even further.

It is also important for governments and the private sector to work together. By offering public services online, governments can stimulate demand for and demonstrate the benefits of ICT. And by choosing suppliers that use ICT to deliver improved services, they can also promote and reward innovative behavior.

CONCLUSION

The Networked Society City Index – including the City, Citizen and Business perspectives – is a comprehensive analysis of the contribution of ICT toward city progress. Through these studies and our interactions with city stakeholders, academia and business leaders, we have gained a clearer understanding of the underlying drivers of city progress.

Today, we stand on the brink of the Networked Society. The contributions of ICT to society have meant significant economic, social and environmental progress for hundreds of millions of people around the world. So how has this change been enabled and what are the mechanisms behind it? Understanding change mechanisms and allowing these to work will help future generations create positive triple bottom line benefits for society.

- > **Change mechanisms** – these include underlying enablers, enabling offerings and behavior and structural changes. These components are interlinked and can influence one another both sequentially, in parallel and in reverse order.
- > **Underlying enablers** – provide the foundation for change and are influenced by stakeholders in society. These can either be catalysts for ICT innovation or obstructions that limit the full, positive impact of ICT on society.
- > **Technology clusters** – concentrations of interconnected businesses that provide fertile ground for technological innovation. They include the following underlying enablers:
 - > Connectivity infrastructure – the backbone enabling people and machines to connect
 - > Devices – servers, computers, handhelds and mobile phones that connect to the infrastructure network
 - > Interoperability – allows devices and infrastructure with different standards to operate with one another.
- > **Human perspective** – the impact of human behavior, skills and knowledge
 - > ICT literacy and readiness – indicate to what extent knowledge exists about new ICT products and services
 - > Acceptance and embracement – explains the

extent to which individual consumers, groups and society at large are willing to adopt these products and services. Evidence shows that consumers embrace or reject new products and services based on both objective and subjective factors.

- > **Investor perspective** – technology, government, society and funding-related enablers that lay the foundation for change mechanisms.
 - > Technological enablers are developing rapidly and are improving the foundation for ICT-related products and services. These developments, in turn, bring about more positive change and triple bottom line benefits for society.

Underlying enablers lay the foundation for mechanisms of change. The creation of enabling services is followed by behavioral and structural changes, which result in real triple bottom line benefits. These changes create momentum in society, including increased demand and development of underlying enablers and enabling services.

As these enablers turn into real change, a new connected world opens up with unlimited opportunities to share our challenges, hopes, aspirations and dreams. This may be the key to solving some of the greatest challenges of our time.

We can't predict exactly what progress will look like in the future – but we can reach further than any other generation by supporting underlying enablers that allow people all around the world to explore their creativity. This is the vision of the Networked Society, where everything that can benefit from a connection will be connected. It is Ericsson's hope and intention to engage with the most forward-looking individuals, organizations and decision-makers around the world to step-by-step realize the vision of a truly networked, collaborative society.

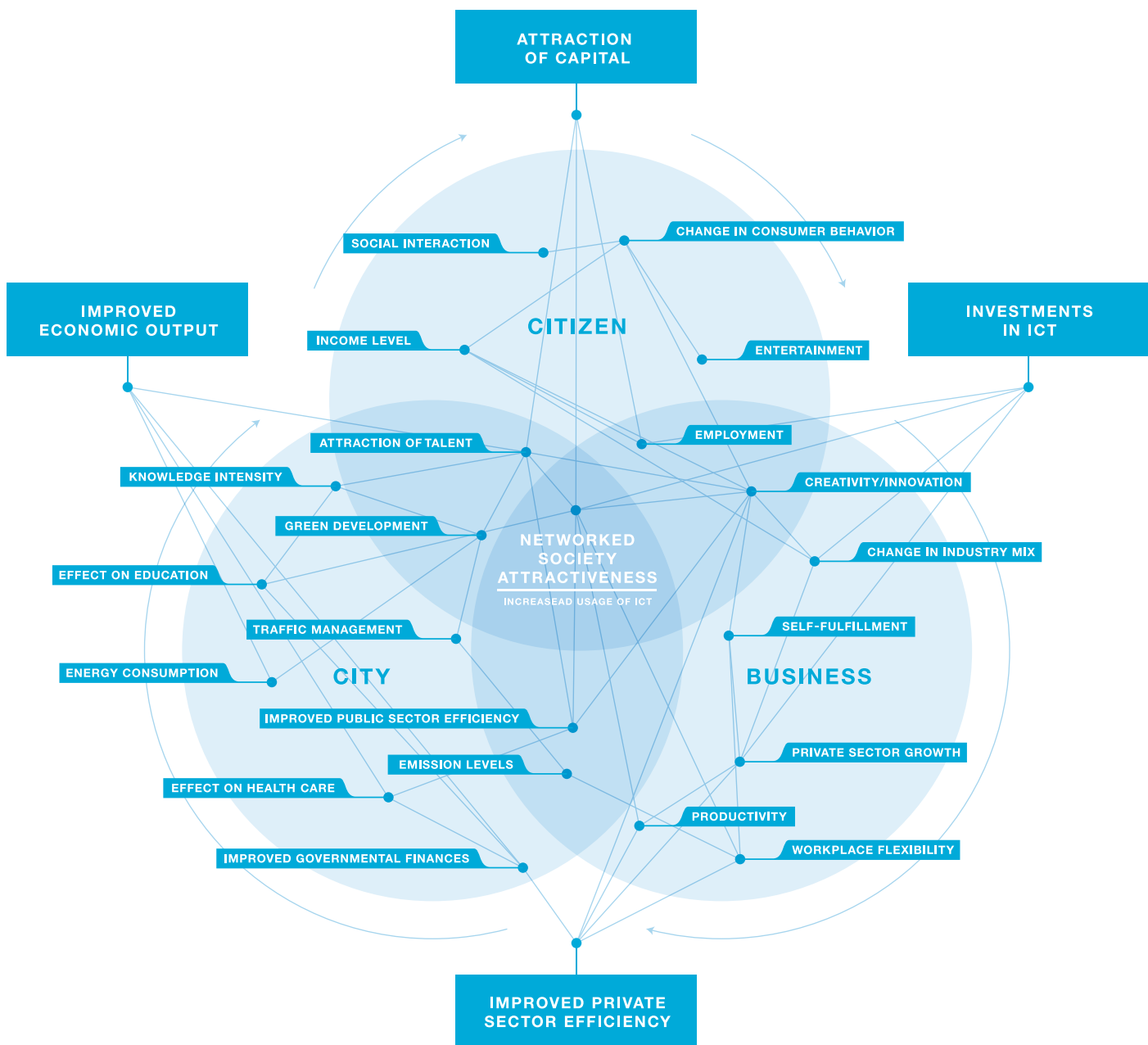


Figure 3: Linkages and interdependencies between ICT development and triple bottom line development in a city environment.

Ericsson is shaping the future of mobile and broadband internet communications through its continuous technology leadership.

Providing innovative solutions in more than 180 countries, Ericsson is helping to create the most powerful communication companies in the world.

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