

STOCKHOLM REPORT 2007

International | Mobile | Innovative

# International – Mob

Where different people meet  
new ideas are born

Stockholm, capital region in one of the Scandinavian countries is characterized by being a waterfront region; and water has always connected people and places. In ancient times when roads were poor and scant, the sea, lakes and rivers permitted diligent and efficient transportation of people and all kinds of commodities. In spite of its peripheral location, waterways have made it possible for the Stockholm region to maintain close connections and trade with cities across the Baltic and elsewhere in Europe. The waterways are also used for recreation and add a high quality of life for the area's 3 million inhabitants.

The Stockholm region developed into an international trading centre and meeting place long before any scholar had invented theories about economic geography. Sigtuna, one of the first cities was established here over 1,000 years ago, and Stockholm was established as early as 1252. The region surrounding Stockholm further north and west, offering high quality raw materials and excellent conditions for iron mining, attracted skilled migrants and craftsmen who settled in the area. Close to the mining industry and near rivers and waterfronts, manufacturing industries were established along Lake Mälaren in cities such as Västerås, Eskilstuna and Örebro. These industries contributed towards boosting the region's international and innovative profile, and the different parts of the region were all highly dependent on each other – and on water access.

# ile - Innovative



The foundations of the Swedish industrialization that later evolved into modern industrial society was thus laid out. In 1856 the first business bank, SEB, was founded and in the 1880s, Stockholm became the first city in the world to have an extensive telephone communications network, which was provided by LM Ericsson. Also, within academics, the region has a long tradition. Uppsala University was founded in 1477 and there are 23 universities and university colleges in the region. Of these, Karolinska Institute, which nominates Nobel Prize laureates, is perhaps the most internationally well known.

Present-day Stockholm is a result of past investments, skilful entrepreneurs and successful integration in the world economy. This is where internationally renowned companies and people such as ABB, Alfred Nobel, Atlas Copco, Ericsson, AstraZeneca and H&M have their roots, as well as Abba, Ingmar Bergman and Annika Sörenstam. As you can see from this presentation, according to a number of international rankings, Stockholm belongs to the group of the most competitive regions in the world. Compiling these international rankings and putting them on display highlights the factors underpinning Stockholm's competitive profile and assets of today: knowledge-driven businesses run by creative and innovative people, sophisticated markets and excellent quality of life.

In this part, the following indexes and rankings are presented:

- World Knowledge Competitiveness Index
- The Regional European Competitiveness Index
- Global Competitiveness Index, World Economic Forum

PART I

# Competitiveness –

# Stockholm at a glance

## Stockholm – Challenger of US Knowledge Regions

The **World Knowledge Competitiveness Index 2005** clearly demonstrates the Swedish capital region's performance. Out of all regions assessed, Stockholm, ranked 8th, emerges as the only non-US region among the top 10 most knowledge intensive regions in the world. The major assets consist of: *per capita expenditure on R&D in business (2)<sup>1</sup>, employment in high-tech services (2), knowledge intensity ratio (2), economic activity rate (7), and private equity per capita (7).*

Since last ranking 2004, Stockholm climbs 7 places up. This rise is the result of improvements in several indicators: business R&D spending, biotech and chemical sector employment, and higher education spending. Another up wind factor is the strong concentration of national private equity to Stockholm, with more than 50 per cent emanating in the capital region.

**Not 1.** The figure within brackets corresponds to Stockholm's ranking for that specific category.

### World Knowledge Competitiveness Index 2005 (Top Ten Regions)

Rank	Region	2005 Index Score	2004 Rank	Change in Rank
1	San Jose, US	295.8	–	–
2	Boston, US	244.3	2	0
3	San Francisco, US	239.1	1	-2
4	Hartford, US	224.7	5	1
5	Seattle, US	205.7	4	-1
6	Grand Rapids, US	195.4	3	-3
7	San Diego, US	193.5	6	-1
<b>8</b>	<b>Stockholm, Sweden</b>	<b>190.8</b>	<b>15</b>	<b>7</b>
9	Rochester, US	176.3	7	-2
10	Los Angeles, US	173.5	11	1

### The Regional European Competitiveness Index 2006-07 (Top Ten Regions)

Rank	Region	2005 Index Score	2004 Rank	Change in Rank
1	Brussels, Belgium	193.5	3	2
2	Helsinki, Finland	188.3	1	-1
3	Paris, France	185.2	4	1
4	<b>Stockholm, Sweden</b>	<b>177.8</b>	<b>2</b>	<b>-2</b>
5	Etelä-Suomi, Finland	175.4	28	23
6	Luxembourg	165.9	6	0
7	Prague, Czech Republic	165.7	-	-
8	Hamburg, Germany	163.5	7	-1
9	London, UK	162.6	8	-1
10	Bratislava, Slovakia	159.6	-	-

*Remark: Etelä-Suomi is an extended region including 7 counties stretching from the southern frontier with Russia all along the southern coast of Finland to the south western part of the country. Helsinki and Turku are located in this region.*

## Stockholm – a European Competitive Hot-spot Region

In a European regional context, Stockholm's performance is on a par with some of the most advanced regions. According to the **European Competitiveness Index 2006–2007**, the major assets of the Stockholm region are: the employment rate (1), total R&D expenditure (1), employment in ICT services (1), R&D employment in business (2), per capita expenditure on R&D by business and higher education (2), employment in IT and computer manufacturing (2), air passengers embarked and disembarked per 1000 inhabitants (4), mean gross earnings (5), employment in biotech (6), patents per million inhabitants (6), and R&D employment in higher education (8).

### Global competitiveness index 2007–2008 World Economic Forum

Rank	Country	Score
1	United States	5.67
2	Switzerland	5.62
3	Denmark	5.55
<b>4</b>	<b>Sweden</b>	<b>5.54</b>
5	Germany	5.51
6	Finland	5.49
7	Singapore	5.45
8	Japan	5.43
9	United Kingdom	5.41
10	Netherlands	5.40
11	Korea, Rep.	5.40
12	Hong Kong SAR	5.37
13	Canada	5.34
14	Taiwan, China	5.25
15	Austria	5.23
16	Norway	5.20
17	Israel	5.20
18	France	5.18
19	Australia	5.17
20	Belgium	5.10

## Stockholm – Capital of a World Class Performing Scandinavian Economy

Not only Stockholm is performing well, also Sweden does. One of the most acknowledged international indexes is the **Global Competitiveness Report**<sup>2</sup>. Sweden ranks highly in terms of competition. Surpassed only by the US, Switzerland and Denmark, Sweden displays particular strengths in higher education and training, technological readiness, business sophistication, and health and primary education. These strengths underscore the Swedish reliance upon knowledge, science, and social investments as main assets in a world of competition.

**Not 2.** The other most cited index is the IMD World Competitiveness Yearbook. In comparison to the IMD, the Global Competitiveness emphasises slightly less the GDP/ca indicator and gives slightly higher weights to some knowledge indicators such as R&D spending.



In this part, the following indexes and rankings are presented:

- Doing Business Ranking, World Bank Group
- European Business Confidence Ranking
- Europe's Best Cities to locate a Business, Cushman and Wakefield
- Jones Lang LaSalle European Regional Growth Index
- World Wide Business Trip Index
- Anholt City Brand Ranking
- Regional gross domestic product
- European Investment Monitor, Ernst & Young

PART 2

# Business and Markets



## Solid Business Climate

Being a highly internationally integrated economy, the ease of doing business in Sweden comes as no surprise. The major assets, as observed by the World Bank Group in the **Doing Business Ranking 2008**, are *registering property, starting and closing a business, dealing with various licences (red tape and hours), and trading across borders*. For all these indicators, Sweden belongs to the top 20 nations in the world.

### World Bank Group: Doing Business Ranking 2008

Rank	Country
1	Singapore
2	New Zealand
3	United States
4	Hong Kong, China
5	Denmark
6	United Kingdom
7	Canada
8	Ireland
9	Australia
10	Iceland
11	Norway
12	Japan
13	Finland
<b>14</b>	<b>Sweden</b>
15	Thailand
16	Switzerland
17	Estonia
18	Georgia
19	Belgium
20	Germany

### Business Confidence, selection of city regions plus top-scoring regions

Region	Favourable	Constant	Unfavourable
Sydsverige	77,3	19,9	2,8
Småland och öarna	76,4	22,2	1,4
Västsverige	74,8	20,5	4,7
Denmark	73,7	25,0	1,4
<b>Östra Mellansverige</b>	<b>72,8</b>	<b>25,4</b>	<b>1,9</b>
Norra Mellansverige	72,6	25,2	2,2
<b>Stockholm</b>	<b>70,7</b>	<b>24,8</b>	<b>4,6</b>
Mellersta Norrland	70,3	26,1	3,7
Övre Norrland	67,6	28,6	3,8
Bulgaria	66,4	25,1	9,6
Flanders (Antwerpen)	66,3	29,4	4,4
London	66,2	19,9	14,8
West Midlands (Birmingham)	65,4	23,7	10,9
Latvia	63,9	27,8	8,3
Cyprus	63,4	31,1	5,5
West Holland (Randstadt)	44,7	46,2	9,1
Ile-de-France (Paris)	43,6	38,4	18,0
Berlin	41,0	49,0	10,0
Lazio (Rome)	40,7	46,3	13,0
Baden-Württemberg (Stuttgart)	32,0	58,0	10,0
Hamburg	31,0	57,0	12,0
Bayern (Munich)	31,0	56,0	13,0
East (Vienna)	25,1	63,0	11,9
Cataluña (Barcelona)	24,0	49,0	27,0
Madrid	16,0	42,0	42,0

Remark: The ranking includes the top 15 European regions plus a selection of city regions.

## Stockholm - Strong Business Confidence

The yearly published **Eurochambre Business Economic Survey 2008** points to similarities between regions in the same member state. The eight Swedish regions report some of the strongest business confidence forecast figures among all regions in the survey. Businesses in Stockholm are particularly optimistic about their labour demand and domestic sales.

## Stockholm – the Business Capital of Scandinavia

In the 2007 European Cities Monitor Stockholm, Stockholm secures its position as the best place for business in Scandinavia. Even though Stockholm is down five places from position 17 to 22, Stockholm still ranks among the best cities in terms of *freedom from pollution (1)*<sup>1</sup>, *quality of life for employees (5)*, *quality of telecommunications (6)*, and *languages spoken (10)*. Stockholm ranks lower for *qualified staff* and *international transportation* in 2007 in comparison with 2006.

**Not 1.** The figure within brackets corresponds to the rank for that particular factor.

### Europe's Best Cities to locate a Business – ECM 2007 Cushman & Wakefield

2007 Ranking	2006 Ranking	City
1	1	London
2	2	Paris
3	3	Frankfurt
4	4	Barcelona
5	6	Amsterdam
6	5	Brussels
7	7	Madrid
8	8	Berlin
9	9	Munich
10	12	Milan
11	11	Dublin
12	20	Geneva
13	10	Zurich
14	13	Prague
15	15	Lisbon
16	14	Düsseldorf
17	24	Lyon
18	21	Manchester
19	18	Warsaw
20	16	Hamburg
21	19	Birmingham
<b>22</b>	<b>17</b>	<b>Stockholm</b>
23	22	Budapest
24	23	Vienna
25	27	Copenhagen
26	25	Glasgow
27	26	Rome
28	29	Bucharest
29	30	Helsinki
30	28	Leeds
31	31	Moscow
32	33	Oslo
33	32	Athens

### Jones Lang LaSalle European Regional Growth Index (E-REGI), 2007

Rank	City
1	London
2	Munich
3	Paris
4	Dublin
<b>5</b>	<b>Stockholm</b>
6	Luxembourg
7	Helsinki
8	Stuttgart
9	Oslo
10	Madrid
11	Barcelona
12	Gothenburg
13	Frankfurt
14	Valencia
15	Zurich
16	Mannheim-Karlsruhe
17	Cologne-Bonn
18	Utrecht
19	Warsaw
20	Frankfurt

## Stockholm – Real Estate Champion of Northern Europe

In the latest update of the Jones Lang LaSalle's **European Regional Growth Index (E-REGI), 2007**, Stockholm establishes itself as the leading Nordic city. The strong performance of the Swedish capital is attributed to the second strongest GDP growth forecast outside Central and Eastern Europe and boosting demand for labour in most business sectors. The fact that Sweden is seen as the country with the most favourable inward investment policy regimes has also attracted Chinese and Indian investors. Furthermore, major infrastructure investments in rail and road systems are planned and so are development projects to tackle accommodation shortages.

## Stockholm – an Attractive European Business Trip Destination

The Economist Intelligence Unit's **World Wide Business Trip Index 2006** assesses both cost-related and environmental factors in order to provide an overview of how desirable a destination is likely to be to the business traveller. More than 120 cities from all over the world are rated and Stockholm ranks here as number 3 in Europe! A quarter of the weight is given to *stability* and *culture & environment* respectively, which has a positive impact on the outcome for Stockholm.

### The Economist Intelligence Unit's World Wide Business Trip Index 2006

Rank	City	Score
1	Vancouver	4,6
2	Calgary	4,9
3	Toronto	5,4
4	Adelaide	8,1
5	Honolulu	8,4
6	Cleveland	8,7
6	Brisbane	8,7
8	Perth	9,2
9	Montreal	9,5
9	Melbourne	9,5
11	Pittsburgh	10,1
12	Sydney	10,4
13	Atlanta	10,5
14	Vienna	11,3
15	Boston	11,8
16	Minneapolis	12,0
17	Copenhagen	12,1
17	Zurich	12,1
<b>17</b>	<b>Stockholm</b>	<b>12,1</b>
20	Geneva	12,4

### Anholt City Brand Ranking 2006

Rank	City
1	Sydney
2	London
3	Paris
4	Rome
5	New York
6	Washington DC
7	San Francisco
8	Melbourne
9	Barcelona
10	Geneva
11	Amsterdam
12	Madrid
13	Montreal
14	Toronto
15	Los Angeles
16	Vancouver
17	Berlin
18	Brussels
19	Milan
20	Copenhagen
21	Munich
22	Tokyo
23	Boston
24	Las Vegas
25	Seattle
<b>26</b>	<b>Stockholm</b>
27	Chicago
28	Atlanta
29	Dublin
30	Edinburgh

Source: Anholt City Brand Ranking 2006.

## Stockholm – Appealing Global Image

The **Anholt City Brand Index 2006** investigates the global perception of a number of cities worldwide covering issues such as people, pulse, status and standing, physical aspects, economic and educational opportunities, and liveable aspects. Stockholm is ranked 26 of 60 cities in 2006. As expected, Stockholm scores low on climate. But the city is rated among the top 10 for environment, standard of public amenities, and safety. Stockholm ranked 17 in 2005 and 26 in 2006. However, in the 2006 edition, the number of cities ranked almost doubled. Especially the introduction of new North American cities has pushed down Stockholm.

## Stockholm – Strong Overall Economic Performance

Stockholm is one of Europe's leading economic regions, with a high concentration of ICT, health care, industry and research. Stockholm's **GDP/ca** growth has picked up again since the sluggish growth in the aftermath of the ICT downturn 2002–2003. Current growth is fuelled by domestic demand, consumer spending and demand for labour. In comparison with the other top performing regions of Europe, Stockholm's growth improved significantly in 2004. Since then, growth has soared.

### Regional gross domestic product (PPS) per inhabitant

Rank	Region	2005
1	Luxembourg	59202
2	Brussels	53876
3	Hamburg	45271
4	Wien	39774
5	Île de France (Paris)	38666
<b>6</b>	<b>Stockholm</b>	<b>38574</b>
7	Berkshire, Bucks and Oxfordshire	37624
8	Oberbayern	37091
9	Groningen	36728
10	Hovedstaden (Copenhagen)	36073
11	Prague	35901
12	Utrecht	35482
13	Southern and Eastern	35420
14	Darmstadt	35325
15	Bremen	35184

Source: Eurostat

*Remark: GDP (gross domestic product) is an indicator of the output of a country or a region. It reflects the total value of all goods and services produced less the value of goods and services used for intermediate consumption in their production. Expressing GDP in PPS (purchasing power standards) eliminates differences in price levels between countries. Calculations on a per inhabitant basis allow for the comparison of economies and regions significantly different in absolute size.*

### Ernst & Young European Investment Monitor 2007

Rank	Region	Number of projects
1	London	250
2	Paris	192
3	Madrid	75
4	Barcelona	74
5	Lyon	70
<b>6</b>	<b>Stockholm</b>	<b>61</b>
7	Bucharest	60
8	Darmstadt	51
9	Antwerpen	50
10	Copenhagen	45
10	Sofia	45
12	Munich	44
13	Zurich	43
14	Berkshire	42
15	Budapest	38
15	Dublin	38

## First FDI Destination in Northern Europe

According to the Ernst&Young **European Investment Monitor 2007**, Stockholm attracted the highest number of FDI projects in 2006 among the northern European regions. Stockholm ranks as 3rd destination for investment projects in financial services, 4th for software, and 6th for electronics.

In this part, the following indexes and rankings are presented:

- Human Development Index (HDI)
- Quality of Living Survey, Mercer
- Quality of Life Index, The Economist
- Mercer Health and Sanitation Ranking
- Environmental Performance Index
- Global Gender Gap Index, World Economic Forum
- Employment Rate Index
- Gini Coefficient Ranking

PART 3

# People and living



conditions

## The UN Ranks Sweden among the Front Runners in Human Development

**The Human Development Index (HDI)**, elaborated by the United Nations Development Programme (UNDP), assesses life expectancy, literacy, education, and standards of living for countries worldwide. Sweden is ranked 6, thanks to high life expectancy rates and educational attainment rates. Sweden's strong economic performance in terms of GDP/ca also explains the high ranking.

### Human Development Index 2007/2008, UNDP, UN Development Program

Rank 2007/2008	Country	Score
1	Iceland	0,968
2	Norway	0,968
3	Australia	0,962
4	Canada	0,961
5	Ireland	0,959
<b>6</b>	<b>Sweden</b>	<b>0,956</b>
7	Switzerland	0,955
8	Japan	0,953
9	Netherlands	0,953
10	France	0,952
11	Finland	0,952
12	United States	0,951
13	Spain	0,949
14	Denmark	0,949
15	Austria	0,948

### Quality of living survey 2007, Mercer

Rank 2007	City	Country	Score, base city New York=100	Rank 2006
1	Zurich	Switzerland	108,1	1
2	Geneva	Switzerland	108,0	2
3	Vancouver	Canada	107,7	3
3	Vienna	Austria	107,7	4
5	Auckland	New Zealand	107,3	5
5	Dusseldorf	Germany	107,3	6
7	Frankfurt	Germany	107,1	7
8	Munich	Germany	106,9	8
9	Bern	Switzerland	106,5	9
9	Sydney	Australia	106,5	9
11	Copenhagen	Danmark	106,2	11
12	Wellington	New Zealand	105,8	12
13	Amsterdam	Netherland	105,7	13
14	Brussels	Bergium	105,6	14
15	Toronto	Canada	105,4	15
16	Berlin	Germany	105,2	16
17	Melbourne	Australia	105,0	17
18	Luxembourg	Luxembourg	104,8	18
18	Ottawa	Canada	104,8	18
<b>20</b>	<b>Stockholm</b>	<b>Sweden</b>	<b>104,7</b>	<b>20</b>
21	Perth	Australia	104,5	21
22	Montreal	Canada	104,3	22
23	Nurnberg	Germany	104,2	23
24	Calgary	Canada	103,6	25
24	Hamburg	Germany	103,6	26
26	Olso	Norway	103,5	31

## Stockholm – High Scores for Quality of Living

The **quality of living reports** are based on annual responses to a questionnaire developed by **international Mercer professionals**. The total index is based on the following categories: *consumer goods, economic environment, housing, medical and health considerations, natural environment, political and social environment, public services and transportation, recreation, schools and education, and socio-cultural environment*. All in all, 215 cities have been assessed.

## Sweden – a High Ranking Quality of Life Nation

The **Quality of life Index 2007**, elaborated by The Economist, is based on a methodology that links the results of subjective life-satisfaction surveys to the objective determinants of quality of life across countries. The following factors are included in the index: *material well-being, health, political stability and security, family life, community life, climate and geography, job security, political freedom, and gender equality.*

### Quality of life index, publicerad 2007, The Economist

Rank 2005	Country	Score	GDP per person, rank
1	Ireland	8,33	4
2	Switzerland	8,07	7
3	Norway	8,51	3
4	Luxembourg	8,02	1
<b>5</b>	<b>Sweden</b>	<b>7,94</b>	<b>19</b>
6	Australia	7,93	14
7	Iceland	7,91	8
8	Italy	7,81	23
9	Denmark	7,80	10
10	Spain	7,73	24
11	Singapore	7,72	9
12	Finland	7,62	20
13	United States	7,62	2
14	Canada	7,60	5
15	New Zealand	7,44	25

### Quality of living survey 2007, Health and sanitation, Mercer

Rank 2007	City	Country	Score, base city New York=100
1	Calgary	Canada	131,7
2	Honolulu	United States	130,3
3	Helsinki	Finland	128,5
4	Ottawa	Canada	127,2
5	Minneapolis, MN	United States	125,7
6	Oslo	Norway	125,0
<b>6</b>	<b>Stockholm</b>	<b>Sweden</b>	<b>125,0</b>
6	Zurich	Switzerland	125,0
9	Katsuyama	Japan	123,8
10	Bern	Switzerland	123,7
10	Boston	United States	123,7
10	Geneva	Switzerland	123,7
10	Lexington, KY	United States	123,7
10	Montreal	Canada	123,7
10	Nurnberg	Germany	123,7
10	Pittsburgh	United States	123,7
10	Vancouver	Canada	123,7
18	Auckland	New Zealand	123,1
18	Wellington	New Zealand	123,1
20	Dublin	Ireland	122,9

## Stockholm – One of the Healthiest Cities in the World

The **quality of living health and sanitary** is based on annual surveys and questionnaires developed by **international Mercer professionals**. Cities in Canada and the US, the Nordic countries, and Switzerland predominate among the top positioned cities. Stockholm and Oslo have similar scores, and Helsinki scores slightly higher.

## Sweden Becoming an Environmental Rolemodel

The **Environmental Performance Index 2006**, constructed by Yale University, Columbia University, World Economic Forum, Ipsra, focuses on two broad environmental protection objectives: 1) reducing environmental stresses on human health, and; 2) protecting ecosystem vitality. Environmental health and ecosystem vitality are gauged using sixteen indicators tracked in six established policy categories: *environmental health, air quality, water resources, biodiversity and habitat, productive natural resources, and sustainable energy.*

The GDP per capita and the EPI rankings often reflect each other. However, the presence of Malaysia and Costa Rica among the top 15 countries suggests that less prosperous countries may also be regarded as environmental precursors.

### Environmental Performance Index, The Pilot 2006

Rank 2006	Country
1	New Zealand
<b>2</b>	<b>Sweden</b>
3	Finland
4	Czech Rep.
5	United Kingdom
6	Austria
7	Denmark
8	Canada
9	Malaysia
10	Ireland
11	Portugal
12	France
13	Iceland
14	Japan
15	Costa Rica

### The Global Gender Gap Index 2007, World Economic Forum

Rank 2007	name	Score	Rank 2006
1	Sweden	0,8146	1
2	Norway	0,8059	2
3	Finland	0,8044	3
4	Iceland	0,7836	4
5	New Zealand	0,7649	7
6	Philippines	0,7629	6
7	Germany	0,7618	5
8	Denmark	0,7519	8
9	Ireland	0,7457	10
10	Spain	0,7444	11
11	United Kingdom	0,7441	9
12	Netherlands	0,7383	12
13	Latvia	0,7333	19
14	Lithuania	0,7234	21
15	Sri Lanka	0,723	13

## Sweden – the Smallest Gender Gap in the World

The **Global Gender Gap Index**, published by **World Economic Forum**, examines the gap between men and women in four fundamental categories: economic participation and opportunity, educational attainment, political empowerment, and health and survival. In the 2007 index, Sweden holds on to its top position from the previous year. Sweden has managed to reduce the gender gap up to 80 per cent, meaning that another 20 per cent remains to bridge in order to achieve complete gender equality.

Sweden performs well in all four categories of the **Global Gender Gap Index**, being the leading country for political empowerment.

## Stockholm – One of the Most Successful Regions for Employment

### Employment rate, per cent

Rank	Region	2006
1	Berkshire, Bucks and Oxfordshire	78.7
2	Vestlandet	77.7
3	Utrecht	77.6
4	Åland	77.2
5	Gloucestershire, Wiltshire and Bristol/Bath area	77.2
6	Oslo og Akershus	76.8
7	Leicestershire, Rutland and Northants	76.2
8	Småland med öarna	76.1
9	Herefordshire, Worcestershire and Warks	76.0
10	North Yorkshire	75.9
11	Hampshire and Isle of Wight	75.8
12	Flevoland	75.6
13	Agder og Rogaland	75.6
<b>14</b>	<b>Stockholm</b>	<b>75.5</b>
15	Surrey, East and West Sussex	75.5
16	Noord-Holland	75.4
17	Gelderland	75.2
18	Cheshire	75.2
19	Noord-Brabant	75.0
20	Zeeland	74.6

Source: Eurostat

Remark: Employment rate of the age group 15–64 in European regions.

### Gini coefficient – measure of inequality of income distribution

2005 Ranking	Country	Score
1	Sweden	23
2	Denmark	24
3	Slovenia	24
4	Iceland	25
5	Austria	26
6	Czech Republic	26
7	Finland	26
8	Luxembourg	26
9	Slovakia	26
10	Albania	27
11	Belgium	28
12	France	28
13	Germany	28
14	Hungary	28
15	Malta	28
16	Norway	28
17	Cyprus	29

Source: Central Intelligence Agency (CIA).

## Stockholm – managing high growth and fair distribution of income

Sweden is one of the countries with the most advanced and ambitious income redistribution schemes within the OECD. The income inequality is consequently low, which the national **Gini coefficient** figure shows in the table. The Gini-coefficient is a figure between 0 and 1, where a low figure indicates a higher rate of income distribution.

In this part, the following indexes and rankings are presented:

- European Innovation Scoreboard (EIS)
- Global Creativity Index
- ICT Opportunity Index
- Digital Opportunity Index
- Academic Ranking of World Universities
- Patent Applications Ranking
- High Tech Patent Applications Ranking
- Employment in Technology and Knowledge-intensive Sectors
- RnD Expenditure

PART 4

# Knowledge and Science



## Stockholm – High Ratings for Innovation

According to the **European Innovation Scoreboard (EIS) 2006**, Sweden ranks highest for the categories: *innovation & entrepreneurship* (innovation expenditures, early-stage venture capital, and innovative SMEs co-operating with others) and *knowledge creation* (business and public R&D expenditure, share of medium-high/high-tech R&D).

Regional figures relieve that Stockholm scores highest among all European regions. The Greater Stockholm Region, labelled Östra Mellansverige in the table, also performs well. This region, consisting of five counties located geographically close to Stockholm, makes it to the top 10 list.

### European Innovation Scoreboard 2006

Rank	Region	Score
1	Stockholm	0,90
2	Västsverige, Gothenburg	0,83
3	Oberbayern	0,79
4	Etelä-Suomi; Helsinki	0,78
5	Karlsruhe	0,77
6	Stuttgart	0,77
7	Braunschweig	0,76
8	Sydsverige, Malmö	0,76
9	Paris	0,75
10	Östra Mellansverige	0,74
11	Berlin	0,74
12	South East UK	0,72
13	Tübingen	0,72
14	Manner-Suomi	0,71
15	Prague	0,70
16	Darmstadt	0,69
17	Eastern, Cambridge	0,69
18	Dresden	0,69
19	Köln	0,69
20	Noord-Brabant, Eindhoven	0,68

### The Global Creativity Index 2004

Rank	Country	Score
1	Sweden	0.808
2	Japan	0.766
3	Finland	0.684
4	United States	0.666
5	Switzerland	0.637
6	Denmark	0.613
7	Iceland	0.612
8	The Netherlands	0.611
9	Norway	0.595
10	Germany	0.577

## Stockholm – a Global Creativity Capital

In Richard Florida's **Global Creativity Index 2004**, Sweden emerged as the most creative country in the world, very much thanks to high scores in technology and tolerance. A creativity index for Swedish regions has also been calculated. Stockholm is unchallenged in two of three categories, technology and tolerance. Uppsala, also located in the Greater Stockholm Region, comes second. And it is also Uppsala that, thanks to its strong economic basis in R&D and presence of a great number of R&D institutions, is national champion in the talent index.

## Stockholm – Ahead of its ICT Competitors

In 2000, Stockholm was appointed the ICT World capital by Newsweek. And this is a position that Stockholm will hold on to. According to the **ICT Opportunity Index 2007** published by ITU, Sweden's particular strengths are namely to be found within the field of skills and uptake capacity. Stockholm is thus well prepared to lead and profit from coming leaps in the ICT development. The prerequisites remain world class thanks to the regional economy's focus on ICT services, investments in R&D and intensive R&D activities.

### International Telecommunication Union – ITU, ICT Opportunity Index 2007

Rank	Country	Score	Average annual growth rate 2001–2005
1	Sweden	378	44
2	Luxembourg	371	77
3	Hong Kong, China	366	57
4	Netherlands	363	53
5	Denmark	361	42
6	Switzerland	354	43
7	Singapore	347	50
8	United Kingdom	346	66
9	Iceland	341	51
10	Norway	339	52
11	Canada	337	34
12	Belgium	324	42
13	United States	324	44
14	Australia	323	76
15	Austria	306	33
16	Germany	303	43
17	Taiwan, China	303	59
18	Israel	297	87
19	Finland	294	44
20	Ireland	286	58
21	Macao, China	280	64
22	Korea (Rep.)	280	39
23	France	278	46
24	Estonia	270	78
25	Barbados	265	109
26	New Zealand	258	43
27	Japan	257	43
28	Italy	256	56
29	Spain	249	54

### Digital Opportunity Index – DOI 2007 (2005/2006)

Rank	Country	Score
1	Korea (Rep.)	0.80
2	Japan	0.77
3	Denmark	0.76
4	Iceland	0.74
5	Singapore	0.72
6	Netherlands	0.71
7	Taiwan, China	0.71
8	Hong Kong, China	0.70
<b>9</b>	<b>Sweden</b>	<b>0.70</b>
10	United Kingdom	0.69
11	Finland	0.69
12	Norway	0.69
13	Luxembourg	0.69
14	Israel	0.69
15	Macao, China	0.69
16	Switzerland	0.69
17	Canada	0.67
18	Austria	0.67
19	Germany	0.66
20	United States	0.66
21	Spain	0.65
22	Australia	0.65
23	Belgium	0.65
24	Estonia	0.65
25	New Zealand	0.65
26	France	0.64

## Sweden – an ICT Nation

The **Digital Opportunity Index** (DOI) 2005/2006 furthermore underlines Sweden's position as a world leading ICT nation.

## Stockholm – Strong Medical Research Track Record

The Greater Stockholm Region is endowed with a great number of universities, of which the oldest one is Uppsala University and the perhaps most famous one is the Karolinska Institute.

In the **Academic Ranking of World universities – ARWU 2007** (Shanghai Jiao Tong) ranking, the Karolinska Institutet is positioned as the 9th best performing medical university in the world. That means that outside the US, the Karolinska Institute is the primary medical university.

### Academic Ranking of World universities 2007

#### ”Top 100 world universities in Clinical Medicine and Pharmacy”

World Rank in MED	ARWU 2006 Rank	Institution*	Country	Total Score
1	1	Harvard Univ	USA	100
2	18	Univ California – San Francisco	USA	83
3	17	Univ Washington – Seattle	USA	77
4	20	Johns Hopkins Univ	USA	74
5	7	Columbia Univ	USA	71
6	14	Univ California – Los Angeles	USA	67
7	38	Univ Texas Southwestern Med Center	USA	66
8	21	Univ Michigan – Ann Arbor	USA	64
<b>9</b>	<b>48</b>	<b>Karolinska Inst Stockholm</b>	<b>Sweden</b>	<b>64</b>
10	48	Univ Pittsburgh – Pittsburgh	USA	63
11	3	Stanford Univ	USA	61
12	102–150	Mayo Clinic Coll Med	USA	61
13	10	Univ Oxford	UK	60
14	32	Univ Minnesota – Twin Cities	USA	59
15	2	Univ Cambridge	UK	
<b>76–108</b>	<b>65</b>	<b>Uppsala Univ</b>	<b>Sweden</b>	
76–108	90	Lund Univ	Sweden	

\* Institutions within the same rank range are listed alphabetically.

**Patent applications to the EPO by priority year at the regional level, per million labour force**

Rank		Region	
1	Germany	Stuttgart	748
2	Netherlands	Noord-Brabant	720
3	Germany	Oberbayern	670
4	Germany	Badem-Wurtemberg	635
5	Germany	Karlsruhe	600
6	Netherlands	Zuid-Nederland	555
7	Germany	Freiburg	546
8	Germany	Tübingen	542
9	Germany	Mittelfranken	508
10	Germany	Bayern	464
11	Austria	Vorarlberg	463
12	Germany	Rhein Hessen-Pfalz	439
13	Germany	Köln	437
14	Germany	Darmstadt	414
15	Germany	Oberpfalz	411
16	Germany	Unterfranken	404
17	Sweden	Sydsverige	392
18	Germany	Schwaben	354
19	Belgium	Prov. Brabant Wallon	343
20	Germany	Düsseldorf	343
21	France	Paris	339
22	UK	Berkshire, Bucks and Oxfordshire	338
<b>23</b>	<b>Sweden</b>	<b>Stockholm</b>	<b>336</b>
24	Germany	Hessen	334
25	UK	East Anglia	332

Source: Eurostat

## Stockholm – an Innovative Region Patenting its Ideas

German regions predominate the patent ranking in Europe. However, Stockholm and a few British, Dutch, Austrian and Finnish regions perform extremely well too. The number of patent applications seem to strongly correlate with the presence of competitive regional industrial clusters.

## Stockholm – Specialised in High-tech Patents

The strong performance in patent applications of the Swedish capital region becomes even more salient once only high-tech patents are considered. Indeed, the Nordic regions predominate the ranking list.

### High-tech patent applications to the EPO by priority year at the regional level, selection of regions

Rank	Country	Region	Per million labour force	
			2002	2003
1	NL	Nord-Brabant	645	234
2	DE	Oberbayern	406	183
3	NL	Zuid-Holland	462	168
4	SE	Sydsverige	293	158
5	SF	Etelä-Suomi	323	138
6	SF	Pohjois-Suomi	271	134
7	DE	Mittelfranken	278	126
8	SF	Länsi-Suomi	279	117
9	SF	Manner-Suomi	271	116
10	DE	Karlsruhe	213	113
11	UK	East Anglia	257	99
12	FR	Bretagne	150	96
<b>13</b>	<b>SE</b>	<b>Stockholm</b>	<b>217</b>	<b>94</b>
14	AT	Wien	121	80
15	FR	Ile de France (Paris)	156	79
16	UK	Berkshire, Bucks and Oxfordshire	169	79
17	UK	Hampshire and Isle of Wight	152	77
18	DE	Köln	135	75
19	DE	Oberpfalz	195	75
20	DE	Stuttgart	149	71

Source: Eurostat

Remark: Etelä-Suomi is an extended region including 7 counties stretching from the southern frontier with Russia all along the southern coast of Finland to the south western part of the country. Helsinki and Turku are located in this region.

## Employment in technology and knowledge-intensive sectors at the regional level

Rank	Region	Percentage share of all employed	
		2005	2006
1	Berkshire, Bucks and Oxfordshire	10,6	11,5
<b>2</b>	<b>Stockholm</b>	<b>10,4</b>	<b>9,3</b>
3	Ile de France (Paris)	8,7	8,9
4	Dresden	6,2	8,7
5	Oberbayern	7,6	8,5
6	Közép-Magyarország (Budapest)	7,1	8,4
7	South East	7,3	8,0
8	Etelä-Suomi	7,8	7,9
<b>9</b>	<b>Östra Sverige</b>	<b>8,4</b>	<b>7,8</b>
10	Mittelfranken	7,5	7,6
11	Oslo og Akershus	8,0	7,6
12	Hampshire and Isle of Wight	7,1	7,6
13	Karlsruhe	8,8	7,6
14	Espace Mittelland	7,5	7,5
15	Surrey, East and West Sussex	6,5	7,5
16	Prov. Vlaams Brabant	6,8	7,4
17	Bedfordshire, Hertfordshire	9,5	7,3
18	Comunidad de Madrid	6,9	7,2
19	Pohjois-Suomi	6,4	7,1
20	Lazio (Rome)	6,3	7,0

Source. Eurostat

## Stockholm – Number One Region in Employing High Tech Staff

Innovation in high value-added sectors has been fuelled by strong skills in science and technology. About a third of all employees in Stockholm with tertiary education are trained in science and technology filed. Stockholm has ranked first among European regions for several years in employing qualified staff in high-tech services.

## Stockholm – top European spender on R&D

According to the latest available figures, Stockholm holds on to its pole position in the R&D field. No other metropolitan region spends as much on R&D as Stockholm in the entire European territory.

### Total R&D expenditure (GERD) by all sectors (government, universities, business) of performance and region

		Percentage of GDP, region	2003
1	DE	Braunschweig	8,7
2	SE	Västsverige	6,03
3	DE	Stuttgart	4,66
4	DE	Oberbayern	4,6
5	SF	Pohjois-Suomi	4,6
<b>6</b>	<b>SE</b>	<b>Stockholm</b>	<b>4,31</b>
<b>7</b>	<b>SE</b>	<b>Östra Mellansverige</b>	<b>4,25</b>
8	SE	Sydsverige	4,13
9	DE	Berlin	3,94
10	DE	Tübingen	3,89
11	DE	Karlsruhe	3,83
12	FR	Midi-Pyrénées (Toulouse)	3,72
13	SF	Etelä-Suomi	3,55
14	SF	Länsi-Suomi	3,49
15	SF	Manner-Suomi	3,45
16	DE	Darmstadt	3,22
17	FR	Ile de France (Paris)	3,2
18	DE	Köln	3,13
19	DE	Dresden	3,1
20	DE	Niedersachsen	2,86

Source: Eurostat

Remark: Data non available for UK and Austrian regions.