

Overview

The Global Information Technology Report 2012 (GITR), co-edited each year by INSEAD Business School and the World Economic Forum, highlights the role that information and communications technology (ICT) plays in a national economy as an enabler of economic, environmental, and social development. The 441-page report uses a broad range of measures to rank advanced and developing countries by how ICT improves business, government and the lives of individuals.

Central to the annual GITR report is the Networked Readiness Index (NRI), a measurement of how ICT is developing in each country and global framework to map out contributing factors to countries' economic and social development capacity. The NRI is a macro-level measurement tool to help better understand "how different national environments affect the adoption and use of ICTs."

A Closer Look at the NRI

The NRI is an aggregate index that captures "drivers" of ICT transformation and the "impacts" on the country. There are three "drivers" and one "impact" sub-index. NRI maps three determinants that drive the capacity of societies to transform and to benefit from the multiple impacts ICT offers. The fourth determinant quantifies the impacts of ICT on the economy. ICT readiness leads to ICT usage and increased impact. The NRI is comprised of four sub-indexes:

1. the supportive environment for ICT;
2. the readiness, or preparedness, of a country to use ICT;
3. the actual usage, or penetration and diffusion, of ICT; and
4. the impacts that ICT generates in the economy and society.

The four sub-indexes are further divided into 10 pillars containing 53 metrics. The final NRI score is a simple average of the four sub-indexes, which in turn are simple averages of their respective pillars.

Networked Readiness Index Framework

Subindexes	Pillars	Metrics
Environment	<ul style="list-style-type: none"> • Political and regulatory environment • Business and innovation environment 	18
Readiness	<ul style="list-style-type: none"> • Infrastructure and digital content • Affordability • Skills 	12
Usage	<ul style="list-style-type: none"> • Individual usage • Business usage • Government usage 	15
Impact	<ul style="list-style-type: none"> • Economic impacts • Social impacts 	8



Results and Key Findings

NRI indexes can vary between 1.00 and 7.00. For the latest measures, NRI indexes vary from a minimum of 2.27, maximum of 5.94, mean of 3.96, lower quartile of 3.32, and upper quartile of 4.59. The median value for the 2011 indexes is 3.88. Of the 142 countries scored in the 2012 GTR, 90 countries received USAID assistance for fiscal year 2010. The 90 countries are included in the results below. Most of the countries not receiving USAID assistance are advanced economies.

Examining the USAID-assisted countries, the top five countries are all advanced countries, except Chile. The bottom five countries are either low income or lower middle income countries, as defined by World Bank.

Top Five USAID-Assisted Countries		
Country	NRI Rank	NRI Score
Taiwan	11	5.48
Israel	20	5.24
Cyprus	32	4.66
Chile	39	4.44
Hungary	43	4.30

Bottom Five USAID-Assisted Countries		
Country	NRI Rank	NRI Score
Haiti	142	2.27
Yemen	141	2.41
Angola	140	2.49
Mauritania	139	2.55
Chad	138	2.55

Trends in NRI are much more revealing. Countries with the most improved scores from last year, two years ago, and five years ago tend to be those close to the median NRI value. None are from the African Region. Countries with most room for improvement—countries with least improved NRI scores over time—are African countries, with the exception of Thailand and El Salvador. Most have NRI index scores less than the median.

Most Improved Countries			
Country	Prior NRI Index	Current NRI Index	Percent Change in NRI
<i>2010 to 2011</i>			
Bosnia and Herzegovina	3.24	3.65	12.7
Mongolia	3.57	3.95	10.6
Moldova	3.45	3.78	9.6
Albania	3.56	3.89	9.3
Ukraine	3.53	3.85	9.1
<i>2009 to 2011</i>			
Albania	3.27	3.89	19.0
Bosnia and Herzegovina	3.07	3.65	18.9
Mongolia	3.36	3.95	17.6
Israel	4.58	5.24	14.4
Ecuador	3.04	3.46	13.8

(continued)

Least Improved Countries			
Country	Prior NRI Index	Current NRI Index	Percent Change in NRI
<i>2010 to 2011</i>			
Angola	2.93	2.49	-15.0
Mauritania	2.98	2.55	-14.4
Burkina Faso	3.09	2.72	-12.0
Lesotho	3.14	2.78	-11.5
Mozambique	3.29	2.99	-9.1
<i>2009 to 2011</i>			
Mauritania	3.19	2.55	-20.1
Burkina Faso	3.10	2.72	-12.3
Lesotho	3.12	2.78	-10.9
Mali	3.27	2.93	-10.4
Madagascar	3.00	2.73	-9.0

(continued)

Most Improved Countries (cont.)			
Country	Prior NRI Index	Current NRI Index	Percent Change in NRI
<i>2006 to 2011</i>			
Albania	2.87	3.89	35.5
Bangladesh	2.55	3.20	25.5
Mongolia	3.18	3.95	24.2
Paraguay	2.69	3.25	20.8
Moldova	3.13	3.78	20.8

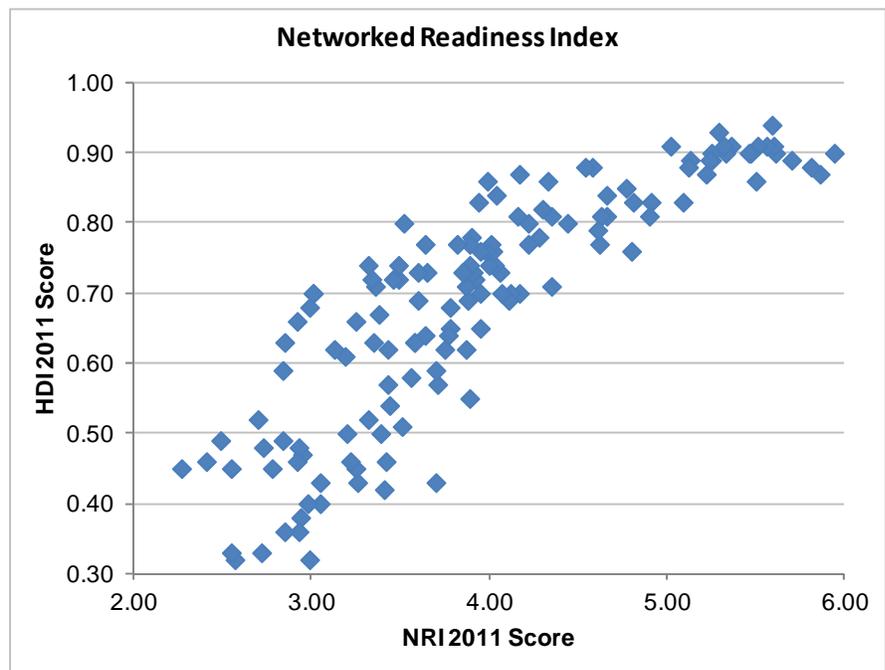
Least Improved Countries (cont.)			
Country	Prior NRI Index	Current NRI Index	Percent Change in NRI
<i>2006 to 2011</i>			
Mauritania	3.25	2.55	-21.5
Thailand	4.21	3.78	-10.2
Burkina Faso	2.97	2.72	-8.4
El Salvador	3.66	3.38	-7.7
Madagascar	2.95	2.73	-7.5

The “digital divide” still exists between the advanced, northern hemisphere and the commodities-driven southern hemisphere, not just in terms of ICT infrastructure but also in terms of the skills necessary to make use of technology to better social and economic conditions. Countries performing strongly in the NRI take a “holistic” strategy to developing technology, exhibiting no weaknesses in any of the key metrics or their pillars.

Practically all countries see fundamental transformations in society. Hyper-connectivity is redefining relationships between individuals, between consumer and enterprises, and how citizens and the state cooperate. A few highlights from the GTR report:

- Data transmitted worldwide surpassed one zettabyte for the first time in 2010.
- The digital universe is now expected to double every two years.
- Africa became the second-largest mobile market in the world in 2011.

The developed world has been able to benefit from productivity gains unleashed by ICT for the past 15 years. The next 15 years will see gains become a global phenomenon, as broadband networks proliferate and more people go online. The chart plots latest NRI indexes with the latest United Nations Human Development Index (HDI) scores for all 142 countries. Again we see the strong correlation of high NRI with high HDI scores. USAID-assisted countries are all located in the left in the steeper portion of the plot. Strong integrated ICT growth enhances the competitiveness and creativity of economies and fuels and “enables” future economic growth.



Networked Readiness Index, 2011

Rank	Country or Economy	Score	Rank	Country or Economy	Score	Rank	Country or Economy	Score
1	Sweden	5.94	49	Poland	4.16	96	Ecuador	3.46
2	Singapore	5.86	50	Tunisia	4.12	97	Ghana	3.44
3	Finland	5.81	51	China	4.11	98	Guatemala	3.43
4	Denmark	5.70	52	Turkey	4.07	99	Honduras	3.43
5	Switzerland	5.61	53	Mauritius	4.06	100	Senegal	3.42
6	Netherlands	5.60	54	Brunei	4.04	101	Gambia	3.41
7	Norway	5.59	55	Kazakhstan	4.03	102	Pakistan	3.39
8	United States	5.56	56	Russian Federation	4.02	103	El Salvador	3.38
9	Canada	5.51	57	Panama	4.01	104	Iran	3.36
10	United Kingdom	5.50	58	Costa Rica	4.00	105	Namibia	3.35
11	Taiwan, China	5.48	59	Greece	3.99	106	Peru	3.34
12	Korea, Rep.	5.47	60	Trinidad and Tobago	3.98	107	Venezuela	3.32
13	China (P.R. Hong Kong)	5.46	61	Azerbaijan	3.95	108	Cambodia	3.32
14	New Zealand	5.36	62	Kuwait	3.95	109	Zambia	3.26
15	Iceland	5.33	63	Mongolia	3.95	110	Uganda	3.25
16	Germany	5.32	64	Slovak Republic	3.94	111	Paraguay	3.25
17	Australia	5.29	65	Brazil	3.92	112	Nigeria	3.22
18	Japan	5.25	66	Macedonia	3.91	113	Bangladesh	3.20
19	Austria	5.25	67	Romania	3.90	114	Tajikistan	3.19
20	Israel	5.24	68	Albania	3.89	115	Kyrgyzstan	3.13
21	Luxembourg	5.22	69	India	3.89	116	Malawi	3.05
22	Belgium	5.13	70	Bulgaria	3.89	117	Benin	3.05
23	France	5.12	71	Sri Lanka	3.88	118	Algeria	3.01
24	Estonia	5.09	72	South Africa	3.87	119	Belize	3.01
25	Ireland	5.02	73	Colombia	3.87	120	Mozambique	2.99
26	Malta	4.91	74	Jamaica	3.86	121	Suriname	2.99
27	Bahrain	4.90	75	Ukraine	3.85	122	Cote d'Ivoire	2.98
28	Qatar	4.81	76	Mexico	3.82	123	Tanzania	2.95
29	Malaysia	4.80	77	Thailand	3.78	124	Zimbabwe	2.94
30	United Arab Emirates	4.77	78	Moldova	3.78	125	Cameroon	2.93
31	Lithuania	4.66	79	Egypt	3.77	126	Mali	2.93
32	Cyprus	4.66	80	Indonesia	3.75	127	Bolivia	2.92
33	Portugal	4.63	81	Cape Verde	3.71	128	Nepal	2.92
34	Saudi Arabia	4.62	82	Rwanda	3.70	129	Syria	2.85
35	Barbados	4.61	83	Vietnam	3.70	130	Ethiopia	2.85
36	Puerto Rico	4.59	84	Bosnia and Herzegovina	3.65	131	Nicaragua	2.84
37	Slovenia	4.58	85	Serbia	3.64	132	Timor-Leste	2.84
38	Spain	4.54	86	Philippines	3.64	133	Lesotho	2.78
39	Chile	4.44	87	Dominican Republic	3.60	134	Madagascar	2.73
40	Oman	4.35	88	Georgia	3.60	135	Burkina Faso	2.72
41	Latvia	4.35	89	Botswana	3.58	136	Swaziland	2.70
42	Czech Republic	4.33	90	Guyana	3.58	137	Burundi	2.57
43	Hungary	4.30	91	Morocco	3.56	138	Chad	2.55
44	Uruguay	4.28	92	Argentina	3.52	139	Mauritania	2.55
45	Croatia	4.22	93	Kenya	3.51	140	Angola	2.49
46	Montenegro	4.22	94	Armenia	3.49	141	Yemen	2.41
47	Jordan	4.17	95	Lebanon	3.49	142	Haiti	2.27
48	Italy	4.17						