

E-GOVERNMENT DEVELOPMENT INDEX

The provision of public services is one of the main tasks of national administrations. The development of new communication technologies and the emerging importance of the internet is obliging national authorities to provide a growing number of services online. This, in turn, means that citizens require the infrastructure and the skills to take advantage of the electronic services on offer.

To measure the development of national e-government capacities, the United Nations has generated the United Nations e-government development index (EGDI). The EGDI is a composite indicator that consists of three indices (online service index, telecommunication index and human capital index) that are equally weighted. In view of the steady growth in technological capabilities and the fact that the UN aims to reflect these developments in their indices, the EGDI is not fully comparable to prior indices reported by the organisation.

The three indices that make up the EGDI cover a broad range of topics that are relevant for e-government (Figure 1):

- The *online service index* measures a government's capability and willingness to provide services and communicate with its citizens electronically.
- The *telecommunication infrastructure index* measures the existing infrastructure that is required for citizens to participate in e-government.
- The *human capital index* is used to measure citizens' ability to use e-government services.

Online service index: This measures four stages of the online availability of national authorities. The higher stages have a greater impact on the index.

The first stage, emerging information service, measures if the government's website provides information to citizens in a user-friendly way, and if it provides links to ministries and other branches of government. As far as this service element is concerned, none of the countries observed have a value below 75 percent, meaning that at least 75 percent of the categories monitored at this stage are rated positively.

The second stage, the enhanced information service, basically tests whether a government's website

enables one-way or simple two-way communication between authorities and citizens. In this case there is a far wider spread in the values scored by countries, which range from between 57 percent of fulfilment in Bulgaria and 95 percent in the United Kingdom.

The third stage, transactional services, measures the extent to which two-way communication between national administration and citizens is possible; including the possibility of handling a wide range of public services online, as well as requesting and receiving inputs on government policies. While the Czech Republic scores just 25 percent, Korea achieves a value of 92 percent at this stage.

The fourth stage, connected services, measures the government's ability to be proactive in web 2.0 applications, and whether the government provides a wide range of tailor-made e-services for different segments of citizens. The scores at this last stage range between 26 percent in Bulgaria and 88 percent in the Netherlands.

Telecommunication infrastructure index: This index consists of the estimated number of internet users, the number of main fixed telephone lines, the number of mobile subscribers, the number of fixed internet subscriptions and the number of fixed broadband facilities, each per 100 inhabitants. Whilst the online service index describes the digital presence and capability of governments, the telecommunication infrastructure index measures the respective national telecommunication infrastructure's ability to enable citizens to participate in all forms of e-government.

Human capital index: The human capital index is a compound of the literacy rate and a combined primary, secondary and tertiary gross enrolment ratio. Due to the high levels in enrolment and literacy in the countries observed, this index varies less than the others.

The EGDI is a result of the indices described above and shows that only two of the observed countries have a value beneath 0.60, namely the Republic of Macedonia (0.5587) and Turkey (0.5281), while Korea (0.9283), the Netherlands (0.9125), and the United Kingdom (0.8960) have the highest index value.

Overall, more countries have a higher value for the online service component than for the telecommuni-

cation infrastructure component; and except for five countries, the value for the human capital component is higher than that of the other components. The fact that the human capital component shows a lower variation in measured values than the other components means that it tends to level out differences in the EGDI value between the countries.

A more detailed table with further information is presented in the DICE Database under the category Public Sector / Public Governance and Law / Transparency.

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Reference

United Nations (2012), *E-Government Survey 2012. E-Government for the People*, New York.

Table 1

United Nations e-government development index (EGDI), 2012

	Rank	Index value	Online service component	Stage I	Stage II	Stage III	Stage IV	Total	Telecomm. infrastructure component	Human capital component
				Relative weight of stages						
				7%	24%	30%	39%	100%		
Austria	21	0.7840	0.7451	100	71	67	54	65	0.6977	0.9091
Belgium	24	0.7718	0.6471	100	64	65	38	57	0.7420	0.9264
Bulgaria	60	0.6132	0.4902	100	57	40	26	43	0.5006	0.8486
Cyprus	45	0.6508	0.5621	100	62	46	35	49	0.5153	0.8751
Czech Republic	46	0.6491	0.5425	100	60	25	48	47	0.5151	0.8898
Denmark	4	0.8889	0.8562	100	86	77	62	75	0.8615	0.9489
Estonia	20	0.7987	0.8235	100	69	65	74	72	0.6642	0.9085
Finland	9	0.8505	0.8824	100	90	75	67	77	0.7225	0.9467
France	6	0.8635	0.8758	100	79	85	65	77	0.7902	0.9244
Germany	17	0.8079	0.7516	92	67	56	68	66	0.7750	0.8971
Greece	37	0.6872	0.5752	100	60	40	43	50	0.5531	0.9332
Hungary	31	0.7201	0.6863	100	69	54	52	60	0.5677	0.9065
Ireland	34	0.7149	0.5359	75	62	44	35	47	0.6553	0.9535
Italy	32	0.7190	0.5752	92	57	48	41	50	0.6697	0.9120
Latvia	42	0.6604	0.5882	100	67	35	46	51	0.5051	0.8879
Lithuania	29	0.7333	0.6993	83	67	54	59	61	0.5765	0.9240
Luxembourg	19	0.8014	0.6993	100	69	62	49	61	0.8644	0.8404
Malta	35	0.7131	0.6144	100	62	48	45	54	0.7192	0.8057
Netherlands	2	0.9125	0.9608	100	88	71	88	84	0.8342	0.9425
Poland	47	0.6441	0.5359	100	67	42	29	47	0.4921	0.9044
Portugal	33	0.7165	0.6536	100	74	42	51	57	0.6028	0.8931
Romania	62	0.6060	0.5163	100	64	29	36	45	0.4232	0.8783
Slovakia	53	0.6292	0.5033	92	60	27	39	44	0.5147	0.8696
Slovenia	25	0.7492	0.6667	100	71	56	45	58	0.6509	0.9300
Spain	23	0.7770	0.7582	92	67	71	58	66	0.6318	0.9409
Sweden	7	0.8599	0.8431	92	90	71	62	74	0.8225	0.9141
United Kingdom	3	0.8960	0.9739	100	95	79	81	85	0.8135	0.9007
Croatia	30	0.7328	0.6405	100	76	44	45	56	0.6965	0.8615
Iceland	22	0.7835	0.5425	92	69	38	33	47	0.8772	0.9310
Macedonia	70	0.5587	0.4510	100	57	23	30	39	0.4135	0.8115
Montenegro	57	0.6218	0.5098	92	64	31	35	45	0.5375	0.8182
Serbia	51	0.6312	0.5752	100	64	38	42	50	0.4701	0.8484
Norway	8	0.8593	0.8562	100	71	79	70	75	0.7870	0.9347
Switzerland	15	0.8134	0.6732	100	88	46	43	59	0.8782	0.8888
Turkey	80	0.5281	0.4641	100	62	23	30	41	0.3478	0.7726
Australia	12	0.8390	0.8627	100	74	79	70	75	0.6543	1.0000
Canada	11	0.8430	0.8889	100	83	81	68	78	0.7163	0.9238
Japan	18	0.8019	0.8627	100	79	75	70	75	0.6460	0.8969
Korea	1	0.9283	1.0000	100	79	92	87	87	0.8356	0.9494
New Zealand	13	0.8381	0.7843	100	79	69	57	69	0.7318	0.9982
United States	5	0.8687	1.0000	100	90	88	83	87	0.6860	0.9202

Source: United Nations (2012, 126–133).