Table SPBS-39

Indexes of internationally coauthored S&E publications, by selected region, country, or economy pairs: 1996 and 2020

(Index)

Region, country, or economy, and year	Canada	Mexico	United States	Argentina	Brazil	Chile	Colombia	United Kingdom	Austria	Belgium	Czechia	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Poland	Portugal	Spain	Sweden	Norway	Russia	Switzerland	Turkey	Iran	Israel	Saudi Arabia	Egypt	South Africa	China	India	Indonesia	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Vietnam	Australia	New Zealand
Canada																																														
1996	na	0.58	1.11	0.46	0.52	0.47	0.47	0.57	0.37	0.38	0.43	0.45	0.35	0.63	0.38	0.53	0.49	0.40	0.44	0.48	0.28	0.35	0.42	0.37	0.33	0.51	0.44	1.26	0.57	0.78	0.51	0.59	0.82	0.67	0.38	0.58	0.33	0.34	0.68	0.35	0.41	0.42	0.33	0.73	0.83
2020	na	0.93	1.20	1.08	1.07	0.97	0.93	0.88	0.87	0.92	0.73	0.99	0.87	1.06	0.78	0.79	1.11	0.79	1.02	0.74	0.67	0.76	0.89	1.00	0.57	1.04	0.65	1.26	1.24	0.52	0.53	0.92	0.83	0.62	0.24	0.73	0.37	0.46	0.66	0.63	0.64	0.56	0.38	1.02	1.18
Mexico																																														
1996	0.58	na	0.97	2.44	1.43	2.24	8.47	0.48	0.13	0.44	0.82	0.24	0.36	0.62	0.27	0.44	0.41	0.33	0.32	0.71	0.34	2.06	0.13	0.18	0.76	0.25	0.60	0.00	0.47	0.00	0.16	0.11	0.18	0.71	0.00	0.28	0.00	0.00	0.18	0.37	0.11	0.52	0.00	0.28	0.26
2020	0.93	na	1.15	4.91	2.21	3.55	7.92	0.67	1.01	0.95	1.33	0.78	1.31	1.07	0.70	1.76	1.10	1.06	0.79	1.24	1.41	2.69	0.72	0.78	1.26	0.79	1.38	0.82	0.81	0.45	0.98	1.17	0.34	1.10	0.84	0.71	0.75	1.08	0.51	0.79	0.82	1.38	0.57	0.55	1.26
United States																																														
1996	1.11	0.97	na	0.73	0.86	0.82	0.99	0.65	0.54	0.51	0.47	0.63	0.69	0.58	0.67	0.69	0.47	0.69	0.63	0.58	0.42	0.59	0.63	0.60	0.53	0.72	0.80	0.59	1.25	0.65	0.72	0.74	0.80	0.94	0.57	1.03	0.40	0.75	0.65	1.44	1.61	0.85	0.27	0.73	0.75
2020	1.20	1.15	na	0.95	0.99	0.92	0.91	0.79	0.73	0.71	0.62	0.85	0.70	0.72	0.81	0.75	0.75	0.78	0.85	0.66	0.52	0.69	0.78	0.74	0.59	0.90	0.75	0.61	1.43	0.42	0.47	0.84	1.11	0.77	0.33	0.88	0.27	0.35	0.73	1.14	0.88	0.73	0.37	0.75	0.81
Argentina																																														
1996	0.46	2.44	0.73	na	4.07	7.27	7.09	0.36	0.31	0.44	0.42	0.48	0.41	0.85	0.44	0.23	0.36	0.86	0.38	0.21	0.27	2.93	0.57	0.24	0.24	0.27	0.20	0.00	0.27	0.00	0.21	0.39	0.14	0.40	0.00	0.22	0.00	0.00	0.00	0.46	0.10	0.00	0.00	0.52	0.35
2020	1.08	4.91	0.95	na	4.41	8.13	8.37	0.80	1.31	1.32	1.84	1.37	1.04	1.38	1.12	1.93	0.93	1.45	1.15	1.51	2.03	3.16	1.20	1.33	0.98	1.27	1.52	0.42	1.89	0.34	0.48	2.15	0.28	0.76	0.57	0.91	0.50	0.44	0.63	0.45	0.88	0.90	0.51	0.96	1.40
Brazil																																														
1996	0.52	1.43	0.86	4.07	na	3.30	4.84	0.74	0.70	0.82	1.12	0.47	0.67	0.94	0.50	0.67	0.39	0.70	0.42	0.60	2.40	0.87	0.58	0.66	0.77	0.49	0.13	0.00	0.27	0.08	0.23	0.36	0.23	0.63	0.21	0.37	0.22	0.14	0.10	0.23	0.19	0.22	0.00	0.30	0.27
2020	1.07	2.21	0.99	4.41	na	3.01	4.65	0.87	0.97	1.00	1.13	0.97	1.12	1.12	0.84	1.19	1.21	1.12	0.90	1.09	4.57	1.58	0.96	0.92	0.85	0.92	0.95	0.59	0.82	0.29	0.48	1.22	0.26	0.78	0.56	0.65	0.46	0.60	0.39	0.48	0.57	1.01	0.36	0.81	1.07
Chile																																														
1996	0.47	2.24	0.82	7.27	3.30	na	2.48	0.59	0.28	0.56	0.17	0.29	0.26	0.72	0.62	0.19	0.00	0.47	0.34	0.21	0.59	2.18	0.68	0.24	0.17	0.41	0.00	0.00	0.30	0.00	0.17	0.87	0.19	0.35	0.40	0.18	0.42	0.51	0.00	0.06	0.00	0.56	0.00	0.60	0.47
2020	0.97	3.55	0.92	8.13	3.01	na	6.91	1.03	1.10	0.96	1.31	1.23	0.93	1.34	1.13	1.45	0.93	1.25	1.10	1.22	1.85	3.56	1.00	1.00	0.82	1.12	1.11	0.57	1.52	0.29	0.33	1.66	0.31	0.81	0.35	0.82	0.46	0.41	0.37	0.49	0.91	0.56	0.38	1.00	1.21
Colombia																																														
1996	0.47	8.47	0.99	7.09	4.84	2.48	na	0.36	0.14	0.61	0.21	0.82	0.16	0.78	0.19	0.00	0.00	0.50	0.52	0.10	0.72	2.05	0.19	0.39	1.11	0.28	0.00	0.00	0.31	0.78	0.00	0.00	0.34	1.70	0.00	0.29	1.04	0.00	0.47	1.65	0.00	0.68	7.86	0.28	0.46
2020	0.93	7.92	0.91	8.37	4.65	6.91	na	0.76	1.51	1.31	2.12	1.01	1.49	1.07	0.83	2.31	2.05	1.13	1.07	1.92	2.24	3.40	0.99	1.14	1.30	1.25	1.92	1.06	1.36	0.49	0.93	1.59	0.31	0.94	0.73	0.60	1.06	1.09	0.48	0.69	1.35	1.79	0.83	0.78	1.73
United Kingdom																																														
1996	0.57	0.48	0.65	0.36	0.74	0.59	0.36	na	0.58	0.77	0.63	0.98	0.71	0.70	0.64	1.38	2.24	0.84	0.93	0.54	1.49	0.94	0.71	0.82	0.50	0.69	1.08	1.20	0.45	0.86	0.40	1.06	0.63	0.64	0.49	0.46	1.55	1.39	1.03	0.26	0.24	0.70	0.40	1.08	1.03
2020	0.88	0.67	0.79	0.80	0.87	1.03	0.76	na	1.16	1.36	1.03	1.45	1.27	1.09	1.11	1.77	2.20	1.31	1.57	1.04	1.18	1.19	1.36	1.42	0.70	1.37	0.89	0.52	1.01	0.48	0.47	1.36	0.74	0.72	0.65	0.68	0.72	0.60	0.83	0.53	0.50	0.91	0.39	1.18	1.38
Austria																																														
1996	0.37	0.13	0.54	0.31	0.70	0.28	0.14	0.58	na	0.70	2.62	1.27	1.22	0.60	1.84	1.54	0.72	0.85	0.77	1.42	1.40	0.87	0.68	1.07	0.77	1.68	0.40	0.28	0.39	0.52	0.75	1.19	0.50	0.22	0.22	0.27	0.12	0.00	0.16	0.60	0.02	0.84	1.09	0.38	0.36
2020	0.87	1.01	0.73	1.31	0.97	1.10	1.51	1.16	na	2.19	3.92	1.84	2.16	1.47	2.92	2.86	1.85	1.99	1.98	2.26	1.79	1.52	1.90	1.98	1.64	2.80	1.68	0.80	1.84	0.28	0.52	1.13	0.37	0.61	0.55	0.90	0.46	0.68	0.59	0.65	0.79	1.25	0.31	0.78	1.22
Belgium																																														
1996	0.38	0.44	0.51	0.44	0.82	0.56	0.61	0.77	0.70	na	1.53	1.16	1.01	1.60	0.82	1.75	1.00	0.97	2.41	1.00	2.23	1.18	1.05	1.02	0.68	0.93	0.51	0.45	0.36	0.33	0.51	0.67	0.32	0.28	0.21	0.31	0.22	0.00	0.10	0.11	0.16	0.39	0.56	0.34	0.21
2020	0.92	0.95	0.71	1.32	1.00	0.96	1.31	1.36	2.19	na	2.08	1.86	2.04	2.34	1.57	2.70	2.23	1.98	3.71	1.93	1.95	1.80	1.75	1.68	1.04	2.18	1.32	0.63	1.42	0.32	0.58	1.44	0.40	0.55	0.41	0.73	0.48	0.41	0.52	0.59	0.60	0.95	0.76	0.88	1.15
Czechia																																														
1996	0.43	0.82	0.47	0.42	1.12	0.17	0.21	0.63	2.62	1.53	na	0.82	1.24	1.07	1.21	1.78	0.25	0.99	1.07	1.90	2.21	0.99	1.22	1.35	1.38	1.17	0.21	0.22	0.47	0.00	0.36	0.68	0.16	0.17	0.00	0.38	0.18	0.00	0.00	0.13	0.34	0.00	0.34	0.30	0.12
2020	0.73	1.33	0.62	1.84	1.13	1.31	2.12	1.03	3.92	2.08	na	1.55	2.56	1.56	1.66	3.32	1.93	1.78	1.50	5.17	2.25	1.60	1.80	2.01	2.81	1.76	2.35	1.14	1.84	0.36	0.82	1.35	0.41	0.98	0.78	1.07	1.03	0.88	0.49	0.94	1.38	1.40	0.82	0.66	1.32
Denmark																																														
1996	0.45	0.24	0.63	0.48	0.47	0.29	0.82	0.98	1.27	1.16	0.82	na	2.08	0.72	0.91	1.81	0.70	0.98	1.34	1.01	1.74	1.06	3.04	3.97	0.78	0.86	0.31	0.00	0.40	0.23	0.20	0.53	0.44	0.32	0.57	0.30	0.00	0.00	0.41	0.45	0.08	0.60	0.57	0.48	0.62
2020	0.99	0.78	0.85	1.37	0.97	1.23	1.01	1.45	1.84	1.86	1.55	na	2.93	1.25	1.59	2.31	2.00	1.43	2.28	1.67	1.74	1.46	3.85	4.31	0.87	1.90	1.27	1.01	1.63	0.28	0.27	1.19	0.60	0.56	0.55	0.76	0.43	0.40	0.82	0.67	0.58	0.78	0.43	1.20	1.25

Table SPBS-39

Indexes of internationally coauthored S&E publications, by selected region, country, or economy pairs: 1996 and 2020

(Index)

Region, country, or economy, and year	Canada	Mexico	United States	Argentina	Brazil	Chile	Colombia	United Kingdom	Austria	Belgium	Czechia	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Poland	Portugal	Spain	Sweden	Norway	Russia	Switzerland	Turkey	Iran	Israel	Saudi Arabia	Egypt	South Africa	China	India	Indonesia	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Vietnam	Australia	New Zealand
Finland																																													
1996	0.35	0.36	0.69	0.41	0.67	0.26	0.16	0.71	1.22	1.01	1.24	2.08	na	0.57	0.76	1.59	1.00	0.79	1.14	1.18	1.71	0.84	3.50	3.75	1.53	0.95	0.42	0.00	0.31	0.00	0.45	0.12	0.45	0.50	0.64	0.51	0.14	0.00	0.49	0.32	0.40	0.09	0.00	0.37	0.36
2020	0.87	1.31	0.70	1.04	1.12	0.93	1.49	1.27	2.16	2.04	2.56	2.93	na	1.33	1.49	2.99	2.36	1.49	1.87	2.42	2.11	1.55	4.63	3.91	2.25	1.79	1.50	1.13	1.41	0.35	0.82	1.33	0.59	0.82	0.74	0.93	0.64	0.90	0.79	0.91	0.71	1.28	0.43	0.97	1.63
France																																													
1996	0.63	0.62	0.58	0.85	0.94	0.72	0.78	0.70	0.60	1.60	1.07	0.72	0.57	na	0.74	1.25	0.60	1.16	0.82	1.04	1.42	1.30	0.64	0.66	0.84	1.17	0.39	0.31	0.58	0.37	0.17	0.44	0.35	0.51	0.50	0.36	0.16	0.14	0.12	0.27	0.20	0.30	0.78	0.36	0.24
2020	1.06	1.07	0.72	1.38	1.12	1.34	1.07	1.09	1.47	2.34	1.56	1.25	1.33	na	1.34	1.87	1.46	1.79	1.46	1.48	1.45	1.62	1.24	1.30	1.28	1.94	0.91	0.45	1.29	0.38	0.42	0.92	0.44	0.59	0.45	0.96	0.31	0.36	0.53	0.54	0.51	0.78	0.73	0.74	0.85
Germany																																													
1996	0.38	0.27	0.67	0.44	0.50	0.62	0.19	0.64	1.84	0.82	1.21	0.91	0.76	0.74	na	1.08	0.59	0.78	0.98	1.17	0.78	0.71	0.69	0.70	1.26	1.41	0.49	0.18	0.71	0.18	0.54	0.65	0.57	0.66	0.26	0.48	0.18	0.58	0.16	0.29	0.21	0.21	0.81	0.46	0.35
2020	0.78	0.70	0.81	1.12	0.84	1.13	0.83	1.11	2.92	1.57	1.66	1.59	1.49	1.34	na	1.66	1.27	1.40	1.88	1.65	1.18	1.27	1.52	1.44	1.52	2.31	0.89	0.57	1.49	0.26	0.58	0.90	0.51	0.57	0.49	0.92	0.25	0.37	0.54	0.60	0.53	0.59	0.44	0.77	0.89
Greece																																													
1996	0.53	0.44	0.69	0.23	0.67	0.19	0.00	1.38	1.54	1.75	1.78	1.81	1.59	1.25	1.08	na	1.37	1.46	1.12	0.93	3.48	1.26	0.83	1.90	0.68	1.27	0.69	0.00	0.42	0.30	0.16	0.52	0.51	0.21	0.00	0.27	0.20	0.00	0.00	0.88	0.23	0.00	0.00	0.16	0.09
2020	0.79	1.76	0.75	1.93	1.19	1.45	2.31	1.77	2.86	2.70	3.32	2.31	2.99	1.87	1.66	na	2.61	2.75	2.14	3.23	3.14	2.40	2.05	2.45	1.84	2.58	3.11	0.98	2.45	0.58	1.10	1.36	0.42	0.87	0.68	0.79	0.93	0.86	0.75	0.81	1.09	1.60	0.63	0.77	1.29
Ireland																																													
1996	0.49	0.41	0.47	0.36	0.39	0.00	0.00	2.24	0.72	1.00	0.25	0.70	1.00	0.60	0.59	1.37	na	0.74	1.35	0.21	1.28	0.80	0.78	0.86	0.23	0.48	0.71	0.00	0.34	0.92	0.12	0.45	0.32	0.14	0.00	0.20	0.61	0.00	0.41	0.13	0.12	0.41	0.00	0.54	0.48
2020	1.11	1.10	0.75	0.93	1.21	0.93	2.05	2.20	1.85	2.23	1.93	2.00	2.36	1.46	1.27	2.61	na	1.62	1.95	2.05	2.22	1.78	1.63	1.78	1.18	1.71	1.43	0.84	1.43	0.39	0.85	1.01	0.53	0.92	0.35	0.56	0.97	0.88	0.78	0.59	0.83	1.24	0.69	1.19	2.37
Italy																																													
1996	0.40	0.33	0.69	0.86	0.70	0.47	0.50	0.84	0.85	0.97	0.99	0.98	0.79	1.16	0.78	1.46	0.74	na	0.95	1.03	1.07	1.29	0.81	0.77	0.90	1.39	0.41	0.32	0.62	0.15	0.36	0.41	0.46	0.49	0.03	0.38	0.10	0.28	0.09	0.38	0.35	0.11	0.44	0.29	0.12
2020	0.79	1.06	0.78	1.45	1.12	1.25	1.13	1.31	1.99	1.98	1.78	1.43	1.49	1.79	1.40	2.75	1.62	na	1.72	1.93	1.87	2.14	1.41	1.36	1.24	2.01	1.39	0.92	1.66	0.36	0.51	0.79	0.34	0.64	0.31	0.73	0.33	0.47	0.49	0.58	0.53	0.63	0.39	0.68	0.77
Netherlands																																													
1996	0.44	0.32	0.63	0.38	0.42	0.34	0.52	0.93	0.77	2.41	1.07	1.34	1.14	0.82	0.98	1.12	1.35	0.95	na	0.75	1.65	1.04	0.89	1.29	0.74	0.99	0.67	0.11	0.62	0.43	0.18	0.55	0.34	0.43	1.29	0.33	0.26	0.48	0.08	0.35	0.21	0.41	1.67	0.45	0.38
2020	1.02	0.79	0.85	1.15	0.90	1.10	1.07	1.57	1.98	3.71	1.50	2.28	1.87	1.46	1.88	2.14	1.95	1.72	na	1.55	1.64	1.54	2.04	2.21	0.92	2.07	1.08	0.58	1.53	0.26	0.28	1.43	0.47	0.52	1.27	0.80	0.30	0.29	0.79	0.44	0.50	0.77	0.36	1.13	0.98
Poland																																													
1996	0.48	0.71	0.58	0.21	0.60	0.21	0.10	0.54	1.42	1.00	1.90	1.01	1.18	1.04	1.17	0.93	0.21	1.03	0.75	na	1.14	0.85	1.14	1.15	1.41	0.93	0.40	0.42	0.45	0.13	0.67	0.71	0.19	0.30	0.00	0.43	0.09	0.21	0.16	0.29	0.13	0.00	0.82	0.19	0.23
2020	0.74	1.24	0.66	1.51	1.09	1.22	1.92	1.04	2.26	1.93	5.17	1.67	2.42	1.48	1.65	3.23	2.05	1.93	1.55	na	2.39	1.74	1.80	1.85	2.29	1.66	2.01	1.07	1.90	0.46	0.79	1.22	0.41	1.01	0.64	0.93	0.64	0.69	0.51	0.78	1.03	1.26	0.80	0.65	1.02
Portugal																																													
1996	0.28	0.34	0.42	0.27	2.40	0.59	0.72	1.49	1.40	2.23	2.21	1.74	1.71	1.42	0.78	3.48	1.28	1.07	1.65	1.14	na	2.89	1.18	2.28	0.94	1.11	0.24	0.00	0.28	0.00	0.00	0.27	0.34	0.29	0.00	0.21	0.00	0.37	0.00	0.09	0.30	0.40	0.00	0.15	0.27
2020	0.67	1.41	0.52	2.03	4.57	1.85	2.24	1.18	1.79	1.95	2.25	1.74	2.11	1.45	1.18	3.14	2.22	1.87	1.64	2.39	na	3.61	1.43	1.88	1.32	1.49	1.85	1.10	1.65	0.34	0.65	1.09	0.34	0.87	0.36	0.61	0.66	0.63	0.40	0.60	0.83	1.00	0.44	0.69	1.34
Spain																																													
1996	0.35	2.06	0.59	2.93	0.87	2.18	2.05	0.94	0.87	1.18	0.99	1.06	0.84	1.30	0.71	1.26	0.80	1.29	1.04	0.85	2.89	na	0.72	0.93	0.66	0.72	0.32	0.06	0.49	0.15	0.17	0.29	0.28	0.40	0.00	0.19	0.00	0.19	0.07	0.39	0.26	0.10	0.00	0.19	0.19
2020	0.76	2.69	0.69	3.16	1.58	3.56	3.40	1.19	1.52	1.80	1.60	1.46	1.55	1.62	1.27	2.40	1.78	2.14	1.54	1.74	3.61	na	1.37	1.45	0.93	1.48	1.16	0.69	1.42	0.35	0.50	0.80	0.30	0.54	0.24	0.67	0.34	0.35	0.42	0.53	0.55	0.51	0.32	0.73	0.78
Sweden																																													
1996	0.42	0.13	0.63	0.57	0.58	0.68	0.19	0.71	0.68	1.05	1.22	3.04	3.50	0.64	0.69	0.83	0.78	0.81	0.89	1.14	1.18	0.72	na	4.34	0.84	0.78	0.32	0.20	0.29	0.87	0.18	0.39	0.50	0.31	0.21	0.48	0.22	0.60	0.32	0.15	0.11	0.36	1.77	0.72	0.43
2020	0.89	0.72	0.78	1.20	0.96	1.00	0.99	1.36	1.90	1.75	1.80	3.85	4.63	1.24	1.52	2.05	1.63	1.41	2.04	1.80	1.43	1.37	na	4.27	1.18	1.69	1.20	0.78	1.44	0.32	0.36	1.52	0.57	0.64	0.50	0.98	0.36	0.54	0.69	0.58	0.53	0.72	0.45	1.04	1.08
Norway																																													
1996	0.37	0.18	0.60	0.24	0.66	0.24	0.39	0.82	1.07	1.02	1.35	3.97	3.75	0.66	0.70	1.90	0.86	0.77	1.29	1.15	2.28	0.93	4.34	na	0.93	0.86	0.25	0.40	0.32	0.25	0.53	0.19	0.38	0.29	0.15	0.32	0.16	0.80	0.15	0.10	0.16	0.00	0.00	0.33	0.51
2020	1.00	0.78	0.74	1.33	0.92	1.00	1.14	1.42	1.98	1.68	2.01	4.31	3.91	1.30	1.44	2.45	1.78	1.36	2.21	1.85	1.88	1.45	4.27	na	1.36	1.75	1.41	0.67	1.49	0.30	0.26	1.62	0.45	0.81	0.72	0.79	0.49	0.51	0.70	0.62	0.66	0.75	0.68	1.01	1.28

Table SPBS-39

Indexes of internationally coauthored S&E publications, by selected region, country, or economy pairs: 1996 and 2020

(Index)

Region, country, or economy, and year	Canada	Mexico	United States	Argentina	Brazil	Chile	Colombia	United Kingdom	Austria	Belgium	Czechia	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Poland	Portugal	Spain	Sweden	Norway	Russia	Switzerland	Turkey	Iran	Israel	Saudi Arabia	Egypt	South Africa	China	India	Indonesia	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Vietnam	Australia	New Zealand
Russia																																														
1996	0.33	0.76	0.53	0.24	0.77	0.17	1.11	0.50	0.77	0.68	1.38	0.78	1.53	0.84	1.26	0.68	0.23	0.90	0.74	1.41	0.94	0.66	0.84	0.93	na	0.69	0.49	0.44	0.81	0.07	0.20	0.40	0.28	0.38	0.04	0.55	0.00	0.00	0.04	0.58	0.29	0.03	0.43	0.24	0.12
2020	0.57	1.26	0.59	0.98	0.85	0.82	1.30	0.70	1.64	1.04	2.81	0.87	2.25	1.28	1.52	1.84	1.18	1.24	0.92	2.29	1.32	0.93	1.18	1.36	na	1.06	1.65	0.83	1.94	0.54	0.98	1.26	0.56	0.98	0.46	1.01	0.53	0.66	0.36	0.84	0.99	0.95	1.42	0.50	0.77
Switzerland																																														
1996	0.51	0.25	0.72	0.27	0.49	0.41	0.28	0.69	1.68	0.93	1.17	0.86	0.95	1.17	1.41	1.27	0.48	1.39	0.99	0.93	1.11	0.72	0.78	0.86	0.69	na	0.57	0.40	0.64	0.14	0.35	0.60	0.33	0.38	0.27	0.42	0.09	0.63	0.21	0.44	0.35	0.56	0.45	0.45	0.33
2020	1.04	0.79	0.90	1.27	0.92	1.12	1.25	1.37	2.80	2.18	1.76	1.90	1.79	1.94	2.31	2.58	1.71	2.01	2.07	1.66	1.49	1.48	1.69	1.75	1.06	na	1.19	0.54	1.58	0.23	0.40	1.23	0.36	0.63	0.50	0.88	0.32	0.35	0.78	0.66	0.63	1.00	0.30	0.90	1.04
Turkey																																														
1996	0.44	0.60	0.80	0.20	0.13	0.00	0.00	1.08	0.40	0.51	0.21	0.31	0.42	0.39	0.49	0.69	0.71	0.41	0.67	0.40	0.24	0.32	0.32	0.25	0.49	0.57	na	0.00	0.45	3.61	1.25	0.30	0.20	0.36	0.00	0.55	0.00	2.50	0.15	0.30	0.07	0.00	0.00	0.15	0.38
2020	0.65	1.38	0.75	1.52	0.95	1.11	1.92	0.89	1.68	1.32	2.35	1.27	1.50	0.91	0.89	3.11	1.43	1.39	1.08	2.01	1.85	1.16	1.20	1.41	1.65	1.19	na	3.03	1.46	2.06	1.84	1.37	0.45	1.39	0.77	0.73	1.42	3.11	0.58	0.96	2.24	1.69	1.57	0.56	0.96
Iran																																														
1996	1.26	0.00	0.59	0.00	0.00	0.00	0.00	1.20	0.28	0.45	0.22	0.00	0.00	0.31	0.18	0.00	0.00	0.32	0.11	0.42	0.00	0.06	0.20	0.40	0.44	0.40	0.00	na	0.11	0.81	0.00	0.32	0.21	1.38	0.00	0.92	2.15	1.31	0.97	0.62	0.63	0.00	0.00	2.29	0.71
2020	1.26	0.82	0.61	0.42	0.59	0.57	1.06	0.52	0.80	0.63	1.14	1.01	1.13	0.45	0.57	0.98	0.84	0.92	0.58	1.07	1.10	0.69	0.78	0.67	0.83	0.54	3.03	na	0.18	0.56	0.76	1.00	0.46	0.90	0.40	0.38	1.89	1.03	0.50	0.89	1.00	1.06	4.82	0.97	1.03
Israel																																														
1996	0.57	0.47	1.25	0.27	0.27	0.30	0.31	0.45	0.39	0.36	0.47	0.40	0.31	0.58	0.71	0.42	0.34	0.62	0.62	0.45	0.28	0.49	0.29	0.32	0.81	0.64	0.45	0.11	na	0.20	0.15	0.84	0.21	0.29	0.00	0.35	0.00	0.11	0.24	0.31	0.33	0.41	0.00	0.47	0.32
2020	1.24	0.81	1.43	1.89	0.82	1.52	1.36	1.01	1.84	1.42	1.84	1.63	1.41	1.29	1.49	2.45	1.43	1.66	1.53	1.90	1.65	1.42	1.44	1.49	1.94	1.58	1.46	0.18	na	0.33	0.28	1.14	0.47	1.00	0.26	0.90	0.26	0.21	0.95	0.75	0.90	0.60	0.38	0.90	1.05
Saudi Arabia																																														
1996	0.78	0.00	0.65	0.00	0.08	0.00	0.78	0.86	0.52	0.33	0.00	0.23	0.00	0.37	0.18	0.30	0.92	0.15	0.43	0.13	0.00	0.15	0.87	0.25	0.07	0.14	3.61	0.81	0.20	na	25.43	1.17	0.13	1.56	0.00	0.18	0.66	5.68	0.00	0.10	0.13	0.00	0.00	0.29	0.15
2020	0.52	0.45	0.42	0.34	0.29	0.29	0.49	0.48	0.28	0.32	0.36	0.28	0.35	0.38	0.26	0.58	0.39	0.36	0.26	0.46	0.34	0.35	0.32	0.30	0.54	0.23	2.06	0.56	0.33	na	11.96	0.91	0.52	2.64	0.64	0.39	2.91	5.80	0.32	0.90	1.18	0.78	1.59	0.51	0.31
Egypt																																														
1996	0.51	0.16	0.72	0.21	0.23	0.17	0.00	0.40	0.75	0.51	0.36	0.20	0.45	0.17	0.54	0.16	0.12	0.36	0.18	0.67	0.00	0.17	0.18	0.53	0.20	0.35	1.25	0.00	0.15	25.43	na	0.11	0.28	0.76	0.68	0.71	1.08	1.32	0.00	0.52	0.21	0.47	0.00	0.14	0.16
2020	0.53	0.98	0.47	0.48	0.48	0.33	0.93	0.47	0.52	0.58	0.82	0.27	0.82	0.42	0.58	1.10	0.85	0.51	0.28	0.79	0.65	0.50	0.36	0.26	0.98	0.40	1.84	0.76	0.28	11.96	na	0.77	0.49	1.18	0.58	1.03	1.21	1.86	0.19	0.84	0.83	1.07	0.92	0.30	0.68
South Africa																																														
1996	0.59	0.11	0.74	0.39	0.36	0.87	0.00	1.06	1.19	0.67	0.68	0.53	0.12	0.44	0.65	0.52	0.45	0.41	0.55	0.71	0.27	0.29	0.39	0.19	0.40	0.60	0.30	0.32	0.84	1.17	0.11	na	0.41	0.73	0.24	0.21	0.00	0.95	0.58	0.04	0.30	0.17	0.00	1.53	1.56
2020	0.92	1.17	0.84	2.15	1.22	1.66	1.59	1.36	1.13	1.44	1.35	1.19	1.33	0.92	0.90	1.36	1.01	0.79	1.43	1.22	1.09	0.80	1.52	1.62	1.26	1.23	1.37	1.00	1.14	0.91	0.77	na	0.42	1.65	1.07	0.68	0.67	0.97	0.50	0.53	0.84	1.44	1.03	1.37	1.44
China																																														
1996	0.82	0.18	0.80	0.14	0.23	0.19	0.34	0.63	0.50	0.32	0.16	0.44	0.45	0.35	0.57	0.51	0.32	0.46	0.34	0.19	0.34	0.28	0.50	0.38	0.28	0.33	0.20	0.21	0.21	0.13	0.28	0.41	na	0.66	0.70	1.49	2.01	0.77	3.14	1.08	1.85	0.53	0.54	0.89	0.61
2020	0.83	0.34	1.11	0.28	0.26	0.31	0.31	0.74	0.37	0.40	0.41	0.60	0.59	0.44	0.51	0.42	0.53	0.34	0.47	0.41	0.34	0.30	0.57	0.45	0.56	0.36	0.45	0.46	0.47	0.52	0.49	0.42	na	0.48	0.32	1.02	0.56	1.49	1.96	0.93	1.47	0.74	0.63	1.19	0.80
India																																														
1996	0.67	0.71	0.94	0.40	0.63	0.35	1.70	0.64	0.22	0.28	0.17	0.32	0.50	0.51	0.66	0.21	0.14	0.49	0.43	0.30	0.29	0.40	0.31	0.29	0.38	0.38	0.36	1.38	0.29	1.56	0.76	0.73	0.66	na	0.49	0.71	4.85	1.01	1.81	0.66	0.76	0.41	0.78	0.63	0.37
2020	0.62	1.10	0.77	0.76	0.78	0.81	0.94	0.72	0.61	0.55	0.98	0.56	0.82	0.59	0.57	0.87	0.92	0.64	0.52	1.01	0.87	0.54	0.64	0.81	0.98	0.63	1.39	0.90	1.00	2.64	1.18	1.65	0.48	na	0.98	0.92	1.99	1.00	1.29	2.03	1.70	1.77	1.68	0.85	0.73
Indonesia																																														
1996	0.38	0.00	0.57	0.00	0.21	0.40	0.00	0.49	0.22	0.21	0.00	0.57	0.64	0.50	0.26	0.00	0.00	0.03	1.29	0.00	0.00	0.00	0.21	0.15	0.04	0.27	0.00	0.00	0.00	0.00	0.68	0.24	0.70	0.49	na	2.41	4.98	1.01	1.12	0.00	0.48	3.84	4.73	2.31	1.66
2020	0.24	0.84	0.33	0.57	0.56	0.35	0.73	0.65	0.55	0.41	0.78	0.55	0.74	0.45	0.49	0.68	0.35	0.31	1.27	0.64	0.36	0.24	0.50	0.72	0.46	0.50	0.77	0.40	0.26	0.64	0.58	1.07	0.32	0.98	na	3.66	10.59	1.13	1.61	1.52	3.44	4.75	1.97	1.28	1.17
Japan																																														
1996	0.58	0.28	1.03	0.22	0.37	0.18	0.29	0.46	0.27	0.31	0.38	0.30	0.51	0.36	0.48	0.27	0.20	0.38	0.33	0.43	0.21	0.19	0.48	0.32	0.55	0.42	0.55	0.92	0.35	0.18	0.71	0.21	1.49	0.71	2.41	na	1.21	0.46	0.82	1.90	0.89	2.09	1.33	0.59	0.47
2020	0.73	0.71	0.88	0.91	0.65	0.82	0.60	0.68	0.90	0.73	1.07	0.76	0.93	0.96	0.92	0.79	0.56	0.73	0.80	0.93	0.61	0.67	0.98	0.79	1.01	0.88	0.73	0.38	0.90	0.39	1.03	0.68	1.02	0.92	3.66	na	1.18	0.34	1.00	1.70	2.17	3.02	1.80	0.87	0.93

Table SPBS-39

Indexes of internationally coauthored S&E publications, by selected region, country, or economy pairs: 1996 and 2020

(Index)

Region, country, or economy, and year	Canada	Mexico	United States	Argentina	Brazil	Chile	Colombia	United Kingdom	Austria	Belgium	Czechia	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Poland	Portugal	Spain	Sweden	Norway	Russia	Switzerland	Turkey	Iran	Israel	Saudi Arabia	Egypt	South Africa	China	India	Indonesia	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Vietnam	Australia	New Zealand
Malaysia																																													
1996	0.33	0.00	0.40	0.00	0.22	0.42	1.04	1.55	0.12	0.22	0.18	0.00	0.14	0.16	0.18	0.20	0.61	0.10	0.26	0.09	0.00	0.00	0.22	0.16	0.00	0.09	0.00	2.15	0.00	0.66	1.08	0.00	2.01	4.85	4.98	1.21	na	1.08	6.34	0.13	0.86	4.08	3.35	1.40	0.20
2020	0.37	0.75	0.27	0.50	0.46	0.46	1.06	0.72	0.46	0.48	1.03	0.43	0.64	0.31	0.25	0.93	0.97	0.33	0.30	0.64	0.66	0.34	0.36	0.49	0.53	0.32	1.42	1.89	0.26	2.91	1.21	0.67	0.56	1.99	10.59	1.18	na	4.34	1.48	1.05	1.91	3.51	3.04	1.18	1.36
Pakistan																																													
1996	0.34	0.00	0.75	0.00	0.14	0.51	0.00	1.39	0.00	0.00	0.00	0.00	0.00	0.14	0.58	0.00	0.00	0.28	0.48	0.21	0.37	0.19	0.60	0.80	0.00	0.63	2.50	1.31	0.11	5.68	1.32	0.95	0.77	1.01	1.01	0.46	1.08	na	0.00	0.47	0.42	3.56	0.00	0.29	0.00
2020	0.46	1.08	0.35	0.44	0.60	0.41	1.09	0.60	0.68	0.41	0.88	0.40	0.90	0.36	0.37	0.86	0.88	0.47	0.29	0.69	0.63	0.35	0.54	0.51	0.66	0.35	3.11	1.03	0.21	5.80	1.86	0.97	1.49	1.00	1.13	0.34	4.34	na	0.44	2.15	1.71	2.16	2.46	0.61	1.13
Singapore																																													
1996	0.68	0.18	0.65	0.00	0.10	0.00	0.47	1.03	0.16	0.10	0.00	0.41	0.49	0.12	0.16	0.00	0.41	0.09	0.08	0.16	0.00	0.07	0.32	0.15	0.04	0.21	0.15	0.97	0.24	0.00	0.00	0.58	3.14	1.81	1.12	0.82	6.34	0.00	na	0.23	1.85	2.88	2.26	1.88	0.88
2020	0.66	0.51	0.73	0.63	0.39	0.37	0.48	0.83	0.59	0.52	0.49	0.82	0.79	0.53	0.54	0.75	0.78	0.49	0.79	0.51	0.40	0.42	0.69	0.70	0.36	0.78	0.58	0.50	0.95	0.32	0.19	0.50	1.96	1.29	1.61	1.00	1.48	0.44	na	1.36	1.75	1.48	1.40	1.34	1.42
South Korea																																													
1996	0.35	0.37	1.44	0.46	0.23	0.06	1.65	0.26	0.60	0.11	0.13	0.45	0.32	0.27	0.29	0.88	0.13	0.38	0.35	0.29	0.09	0.39	0.15	0.10	0.58	0.44	0.30	0.62	0.31	0.10	0.52	0.04	1.08	0.66	0.00	1.90	0.13	0.47	0.23	na	1.09	0.34	0.49	0.45	0.34
2020	0.63	0.79	1.14	0.45	0.48	0.49	0.69	0.53	0.65	0.59	0.94	0.67	0.91	0.54	0.60	0.81	0.59	0.58	0.44	0.78	0.60	0.53	0.58	0.62	0.84	0.66	0.96	0.89	0.75	0.90	0.84	0.53	0.93	2.03	1.52	1.70	1.05	2.15	1.36	na	1.66	1.73	3.37	0.72	0.92
Taiwan																																													
1996	0.41	0.11	1.61	0.10	0.19	0.00	0.00	0.24	0.02	0.16	0.34	0.08	0.40	0.20	0.21	0.23	0.12	0.35	0.21	0.13	0.30	0.26	0.11	0.16	0.29	0.35	0.07	0.63	0.33	0.13	0.21	0.30	1.85	0.76	0.48	0.89	0.86	0.42	1.85	1.09	na	1.02	0.33	0.32	0.19
2020	0.64	0.82	0.88	0.88	0.57	0.91	1.35	0.50	0.79	0.60	1.38	0.58	0.71	0.51	0.53	1.09	0.83	0.53	0.50	1.03	0.83	0.55	0.53	0.66	0.99	0.63	2.24	1.00	0.90	1.18	0.83	0.84	1.47	1.70	3.44	2.17	1.91	1.71	1.75	1.66	na	3.15	3.49	0.71	1.09
Thailand																																													
1996	0.42	0.52	0.85	0.00	0.22	0.56	0.68	0.70	0.84	0.39	0.00	0.60	0.09	0.30	0.21	0.00	0.41	0.11	0.41	0.00	0.40	0.10	0.36	0.00	0.03	0.56	0.00	0.00	0.41	0.00	0.47	0.17	0.53	0.41	3.84	2.09	4.08	3.56	2.88	0.34	1.02	na	8.85	2.16	0.90
2020	0.56	1.38	0.73	0.90	1.01	0.56	1.79	0.91	1.25	0.95	1.40	0.78	1.28	0.78	0.59	1.60	1.24	0.63	0.77	1.26	1.00	0.51	0.72	0.75	0.95	1.00	1.69	1.06	0.60	0.78	1.07	1.44	0.74	1.77	4.75	3.02	3.51	2.16	1.48	1.73	3.15	na	3.66	1.08	1.84
Vietnam																																													
1996	0.33	0.00	0.27	0.00	0.00	0.00	7.86	0.40	1.09	0.56	0.34	0.57	0.00	0.78	0.81	0.00	0.00	0.44	1.67	0.82	0.00	0.00	1.77	0.00	0.43	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.78	4.73	1.33	3.35	0.00	2.26	0.49	0.33	8.85	na	1.28	0.37
2020	0.38	0.57	0.37	0.51	0.36	0.38	0.83	0.39	0.31	0.76	0.82	0.43	0.43	0.73	0.44	0.63	0.69	0.39	0.36	0.80	0.44	0.32	0.45	0.68	1.42	0.30	1.57	4.82	0.38	1.59	0.92	1.03	0.63	1.68	1.97	1.80	3.04	2.46	1.40	3.37	3.49	3.66	na	1.24	0.80
Australia																																													
1996	0.73	0.28	0.73	0.52	0.30	0.60	0.28	1.08	0.38	0.34	0.30	0.48	0.37	0.36	0.46	0.16	0.54	0.29	0.45	0.19	0.15	0.19	0.72	0.33	0.24	0.45	0.15	2.29	0.47	0.29	0.14	1.53	0.89	0.63	2.31	0.59	1.40	0.29	1.88	0.45	0.32	2.16	1.28	na	4.11
2020	1.02	0.55	0.75	0.96	0.81	1.00	0.78	1.18	0.78	0.88	0.66	1.20	0.97	0.74	0.77	0.77	1.19	0.68	1.13	0.65	0.69	0.73	1.04	1.01	0.50	0.90	0.56	0.97	0.90	0.51	0.30	1.37	1.19	0.85	1.28	0.87	1.18	0.61	1.34	0.72	0.71	1.08	1.24	na	3.34
New Zealand																																													
1996	0.83	0.26	0.75	0.35	0.27	0.47	0.46	1.03	0.36	0.21	0.12	0.62	0.36	0.24	0.35	0.09	0.48	0.12	0.38	0.23	0.27	0.19	0.43	0.51	0.12	0.33	0.38	0.71	0.32	0.15	0.16	1.56	0.61	0.37	1.66	0.47	0.20	0.00	0.88	0.34	0.19	0.90	0.37	4.11	na
2020	1.18	1.26	0.81	1.40	1.07	1.21	1.73	1.38	1.22	1.15	1.32	1.25	1.63	0.85	0.89	1.29	2.37	0.77	0.98	1.02	1.34	0.78	1.08	1.28	0.77	1.04	0.96	1.03	1.05	0.31	0.68	1.44	0.80	0.73	1.17	0.93	1.36	1.13	1.42	0.92	1.09	1.84	0.80	3.34	na

na = not applicable.

Note(s):
Article counts refer to publications from a selection of journals and conference proceedings in S&E from Scopus. Articles are classified by their year of publication and are assigned to a region, country, or economy on the basis of the institutional address(es) of the author(s) listed in the article. Articles are credited on a whole count basis (i.e., each collaborating region, country, or economy is credited with one count). Regions, countries, or economies that have contributed to less than 1% of all internationally coauthored articles in 2020 are omitted. The index of collaboration is calculated as follows: $ICxy = (Cxy/Cx)/(Cy/Cw)$, where $ICxy$ = index of collaboration between country x and country y, Cxy = number of papers coauthored between country x and country y, Cx = total number of international coauthorships by country x, Cy = total number of international coauthorships by country y, and Cw = total number of international coauthorships in the database. Shaded cells show region, country, or economy pairs that collaborate at or above the world average (i.e., index equal or greater than 1).

Source(s):
National Center for Science and Engineering Statistics; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed May 2021.

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