Extended Data

Multiple ways exist to identify top international, interdisciplinary scientific journals. We personally support the San Francisco Declaration on Research Assessment and concur that research should be assessed on its own merits rather than on the basis of the journal in which it is published (DORA, 2019). However, there is evidence that, within the general public, the place of publication is a proxy for quality with journals such as Nature and Science considered to be "the epitome of quality, publishing only the best research" (Schekman, 2013). Using the h-index of a journal as a metric (2018 data, Table S1) confirms this, showing Nature and Science in positions 1 and 2 respectively.

Table S1 – Top 10 international journals based on H-index values (source Scimago: https://www.scimagojr.com/journalrank.php?order=h&ord=desc).

	Title	H index	Total Docs. (2018)	Total Docs. (3years)	Total Refs. (2018)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2018)
1	Nature	1096	2831	8065	47237	122051	4587	24.36	16.69
2	Science	1058	2035	6772	37002	102278	4544	20.57	18.18
3	New England Journal of Medicine	933	1398	4994	15059	79459	1923	37.91	10.77
4	Cell	705	641	1905	31265	46286	1657	27.35	48.78
5	The Lancet	700	1650	5330	24499	53986	1391	43.38	14.85
6	Proceedings of the National Academy of Sciences of the United States of America	699	3840	11763	165727	100655	10048	9.35	43.16
7	JAMA - Journal of the American Medical Association	622	1501	4510	14694	31030	2081	14.78	9.79
8	Chemical Reviews	609	250	852	97014	45974	809	52.85	388.06
9	Circulation	570	840	2639	10726	23646	1578	14.44	12.77
10	Physical Review Letters	567	2883	7687	131076	66449	7363	9.2	45.47

This wider visibility, which in turn can influence policy, secure media attention, and help research gain traction, is also confirmed by another indicator: Altmetric. Within the Top100 articles for Altmetric score in 2018 (Altmetric, 2018), Science and Nature are again at the top featuring together 20% of the articles, more than any other journal in the list. Both Science and Nature have also a suite of journals (e.g. Nature Climate Change, Nature Sustainability, Science Advances, etc.). While the metrics for these journals are substantially different from the original journal, they are often considered by the public just as good. This might have to do with a strong marketing strategy known as 'umbrella branding' (Hakenes & Peitz, 2008). For instance an article published in the Nature journal Scientific Data (Oakleaf et al., 2019) has the following URL: https://www.nature.com/articles/s41597-019-0084-8 which makes it harder to distinguish from an article published in Nature (Tong et al., 2019) for a non-expert readership (URL: https://www.nature.com/articles/s41586-019-1364-3). Without any intention of providing a subjective judgement on the journals themselves, we simply argue here that research published in Nature Energy has more chances of gaining global visibility than research published in Renewable Energy (despite the 2018 h-index for

the two journals are 61 and 157 respectively). Equally, research published in Nature Sustainability (no impact factor) has higher chances of being 'picked up' than research published in Sustainability (impact factor: 2.592). For these reasons, Nature, Science and their suite of journals as they appear on their websites are the "top international, interdisciplinary scientific journals" we refer to in this article. Things would of course differ if we were looking at specific categories. For instance, in the Scimago journal ranking under the 'Building and Construction' field (Table S2) journals such as Building and Environment, Energy and Buildings, Building Research & Information—which regularly publish research on building-related environmental effects—all feature in the top 25.

Table S2 – Top 25 international journals based on H-index values (source Scimago: https://www.scimagojr.com/journalrank.php?order=h&ord=desc).

	Title	H index	Total Docs. (2018)	Total Docs. (3years)	Total Refs. (2018)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2018)
1	Cement and Concrete Research	175	184	603	10451	4335	589	6.12	56.8
2	Applied Energy	162	1819	4530	101870	42891	4471	9.27	56
3	Cement and Concrete Composites	122	236	520	11082	3386	516	5.68	46.96
4	Tunnelling and Underground Space Technology	77	378	599	14026	2924	591	4.64	37.11
5	Energy	158	2205	4958	98959	30497	4895	6.15	44.88
6	Energy and Buildings	147	839	2624	38590	13966	2602	5.03	46
7	Journal of Structural Engineering	126	297	881	10576	2574	839	2.98	35.61
8	Building and Environment	124	587	1295	29746	7212	1278	5.2	50.67
9	Journal of Composites for Construction	83	73	339	2633	1102	325	3.03	36.07
10	Journal of Constructional Steel Research	81	354	910	11272	3056	903	3.17	31.84
11	Thin-Walled Structures	73	487	980	18588	4038	979	4	38.17
12	International Journal of Refrigeration	100	361	871	11733	3316	826	3.75	32.5
13	Indoor Air	88	88	266	4116	1193	240	4.92	46.77
14	Structural Safety	79	53	182	2294	729	179	4	43.28
15	Materials and Structures/Materiaux et Constructions	80	172	909	6835	2902	899	2.92	39.74
16	Construction and Building Materials	129	2936	5341	121718	26973	5300	4.69	41.46
17	Structural Control and Health Monitoring	48	214	337	8619	1368	335	3.92	40.28
18	Bulletin of Earthquake Engineering	50	270	544	11925	1548	526	2.52	44.17
19	Journal of Bridge Engineering	59	166	508	5239	1186	490	2.31	31.56

	Title	H index	Total Docs. (2018)	Total Docs. (3years)	Total Refs. (2018)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2018)
20	Automation in Construction	95	312	532	15487	3321	525	5.81	49.64
21	Georisk	19	22	76	702	163	69	2.56	31.91
22	Building Research and Information	72	67	189	3545	661	176	3.58	52.91
23	Journal of Building Performance Simulation	29	51	120	1861	315	114	3.02	36.49
24	Steel and Composite Structures	35	237	568	10052	2572	568	4.17	42.41
25	Structure and Infrastructure Engineering	36	126	350	5541	914	339	2.7	43.98

Similarly, according to InCites for the category 'Construction and Building Technology', these journals are all in the top 20 together with Sustainable Cities and Society and Construction and Building Materials (Table S3) among others. This is just to emphasise that our wording for 'top international, interdisciplinary scientific journals' is linked to the public perception and media attention rather than the global reputation of a journal for specific disciplines.

Table S3 – Top 20 journals in the field 'Construction and Building Technology' – Source InCites [Journal Data Filtered By: Selected JCR Year: 2018 Selected Editions: SCIE Selected Categories: 'CONSTRUCTION & BUILDING TECHNOLOGY' Selected Category Scheme: WoS].

Rank	Full Journal Title	Total Cites	Journal Impact Factor	Eigenfactor Score
1	COMPUTER-AIDED CIVIL AND INFRASTRUCTURE ENGINEERING	3,090	6.208	0.00412
2	CEMENT AND CONCRETE RESEARCH	34,278	5.618	0.01625
3	CEMENT & CONCRETE COMPOSITES	14,951	5.172	0.01436
4	**BUILDING AND ENVIRONMENT**	24,741	4.82	0.02174
5	INDOOR AIR	4,851	4.71	0.00562
6	**Sustainable Cities and Society**	3,924	4.624	0.00535
7	**ENERGY AND BUILDINGS**	36,886	4.495	0.03907
8	AUTOMATION IN CONSTRUCTION	8,869	4.313	0.0087
9	**CONSTRUCTION AND BUILDING MATERIALS**	56,987	4.046	0.06371
10	TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY	8,362	3.942	0.00916
11	STEEL AND COMPOSITE STRUCTURES	3,566	3.899	0.00462
12	**BUILDING RESEARCH AND INFORMATION**	3,256	3.744	0.00263
13	Structural Control & Health Monitoring	3,353	3.74	0.00522
14	Journal of Building Performance Simulation	978	3.11	0.00155
15	JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT	8,249	2.734	0.00463
16	JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH	10,070	2.65	0.01169
17	Leukos	376	2.647	0.00053
18	Advances in Concrete Construction	178	2.618	0.00026
19	MATERIALS AND STRUCTURES	10,201	2.548	0.01123
20	JOURNAL OF STRUCTURAL ENGINEERING	17,390	2.528	0.01366

Table S4 – Full list of outputs matching the keywords used for this article in the top interdisciplinary international journals as defined for the scope of this research and as presented in the tables and text above. .

Item	Title	Journal	Focus
1	Urban infrastructure choices structure climate solutions	Nature Climate Change	City
2	Implications of agricultural transitions and urbanization for ecosystem services	Nature	City
3	Reducing Urban Greenhouse Gas Footprints	Scientific Reports	City
4	Sustainable Development Goals and climate change adaptation in cities	Nature Climate Change	City
5	Contributions of sociometabolic research to sustainability science	Nature Sustainability	City
6	Urban cross-sector actions for carbon mitigation with local health co-benefits in China	Nature Climate Change	City
7	Cities lead the way in climate–change action	Nature	City
8	City-integrated renewable energy for urban sustainability	Science	City
9	Clean air for Megacities	Science	City
10	Meta-principles for developing smart, sustainable, and healthy cities	Science	City
11	Toward cities without slums: Topology and the spatial evolution of neighborhoods	Science Advances	City
12	Global Change and the Ecology of Cities	Science	City
13	Volatile chemical products emerging as largest petrochemical source of urban organic emissions	Science	City
14	Evolution of life in urban environments	Science	City
15	The food-energy-water nexus and urban complexity	Nature Climate Change	City
16	Substantial global carbon uptake by cement carbonation	Nature Geoscience	Material
17	Towards sustainable concrete	Nature Materials	Material
18	Wood: a construction material for tall buildings	Nature Reviews Materials	Material
19	Making more with less	Nature Climate Change	Material
20	Higher standards for sustainable building materials	Nature Climate Change	Material
21	Impacts of booming concrete production on water resources worldwide	Nature Sustainability	Material
22	Processing bulk natural wood into a high-performance structural material	Nature	Material
23	Materials for Aesthetic, Energy-Efficient, and Self-Diagnostic Buildings	Science	Material
24	Bioinspired structural materials	Nature Materials	Material
25	A database seed for a community-driven material intensity research platform	Scientific Data	Material
26	Indoor Ecosystems	Science	Building
27	Toward autonomous architecture: The convergence of digital design, robotics, and the built environment	Science Robotics	Building

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