

PRESS RELEASE – Sustainable steel - Indicators 2020 and steel applications

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The World Steel Association (worldsteel) today publishes *Sustainable steel - Indicators 2020 and steel applications*. The publication features the steel industry's sustainability performance via its 8 sustainability indicators and focuses on 3 key steel applications from a life cycle perspective: automotive, construction and packaging.

A life cycle assessment (LCA) of a product provides a full picture of its environmental performance as it accounts for resource and energy consumption as well as all emissions to air, water and land. LCA also considers all stages of a product's life, from the raw material extraction stage to its end-of-life stage, including reuse and recycling. An LCA approach must therefore be considered for the development of appropriate legislation to ensure that the true environmental impact of products is assessed correctly and consistently, avoiding any unintended consequences.

Construction, automotive and packaging are examples of three key steel market sectors where life cycle thinking is being incorporated into regulations or standards. A more widespread use of LCA in other applications is crucial to minimise the overall environmental impact of products throughout their whole life.

Nine steel companies were recognised by worldsteel as Steel Sustainability Champions for their work in 2019; ArcelorMittal, BlueScope, China Steel Corporation, JSW Steel Limited, Nippon Steel Corporation, Tata Steel Europe, Tata Steel Limited, Tenaris and Ternium. Not only did they provide data for each of the indicators and for worldsteel's life cycle inventory (LCI) database, but also a programme or initiative of these companies was shortlisted for one of the 5 categories of the annual Steelie Awards, or Safety and Health recognition programme.

worldsteel uses 8 indicators to measure key aspects of the steel industry's economic, environmental and social sustainability performance. A total of 104 steel companies representing 1.1 billion tonnes of crude steel production contributed data – this covers nearly 60% of global crude steel production.

	Indicator	Unit	2017	2018	2019	
Environmental Performance	1	CO ₂ intensity	tonnes CO ₂ / tonne crude steel cast	1.84	1.81	1.83
	2	Energy intensity	GJ / tonne crude steel cast	19.85	19.54	19.84
	3	Material efficiency	% of materials converted to products and co-products	96.49	96.33	97.49
	4	Environmental management systems	% of employees and contractors working in registered production facilities	96.55	97.08	97.15
Social Performance	5	Lost time injury frequency rate	injuries / million hours worked	0.97	0.84	0.83
	6	Employee training	training days / employee	6.26	6.36	6.89
Economic Performance	7	Investment in new processes and products	% of revenue	5.76	6.10	7.07
	8	Economic value distributed	% of revenue	95.36	93.84	98.02

[Click here](#) for more data, a list of the contributing organisations and a detailed explanation of the methodology for each indicator.

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Notes

- The World Steel Association (worldsteel) is one of the largest and most dynamic industry associations in the world, with members in every major steel-producing country. worldsteel represents steel producers, national and regional steel industry associations, and steel research institutes. Members represent around 85% of global steel production.