



# Climate Smart Mining

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Dr. Leopold von Carlowitz, Sector Program Extractives for Development (X4D)





Without mining the global energy and mobility transition will not be possible.





League Table rank	2015 League Table rank	Company	Country	Average market cap Q2 2017 (US\$bn) <sup>(i)</sup>	2016 Emissions (\$1+2 CO <sub>2</sub> million tonnes)	League Table score	Managing transition risks	Managing physical risks	Transition opportunities	Climate governance & strategy
1	1	Vale	Brazil	31.8	14.7	4.90	A	A	C	D
2	n/a	Boliden	Sweden	6.4	1.0	4.96	A	B	B	C
3	2	BHP	Australia/UK	84.1	18.0	5.28	B	A	C	B
4	4	Rio Tinto	Australia/UK	63.4	32.4	5.82	B	C	A	C
5	11	Glencore	Switzerland	40.6	35.6	5.88	C	B	B	C
6	n/a	South32	Australia	9.3	23.5	6.15	D	B	D	A
7	6	Antofagasta	UK	7.1	2.8	6.29	C	C	B	C
8	5	Teck	Canada	10.8	2.9	6.60	D	B	E	B
9	7	Anglo American	UK	16.0	17.8	7.07	E	B	D	D
10	8	Freeport-McMoRan	USA	16.1	10.3	7.17	C	D	D	D
11	10	First Quantum Minerals	Canada	6.3	1.4	7.79	B	E	C	E
12	9	Vedanta Resources	UK	2.2	53.3	8.02	E	E	D	C

#### Weighting

30%

30%

20%

20%

(i) Average market cap for last 12 months up to Q2 2017

Source: CDP

CO<sub>2</sub>-emissions and market capitalization of the 12 largest mining companies.

Sum of emissions: 213,7 Mio. t comparable to GHG-emissions of Spain (2016)

Summe market cap: 294 Mrd. US\$ (Q2 2017)

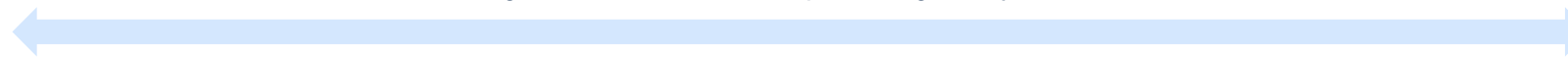


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# Climate Smart Mining

‘Climate Smart Mining’ (CSM) supports the **sustainable extraction and processing of minerals and metals** to secure supply for clean energy technologies by *minimizing* the climate and environmental footprint throughout the value chain of those materials by scaling up technical assistance and investments in mineral rich developing countries.



Strong Governance and Adequate Regulatory Framework			
GHG Mitigation	GHG Adaptation	Reducing Material Impacts	Creating Market Opportunities
Integration of Renewable Energy in the Mining Sector	Forest Smart Mining within Landscape Management	Adoption of a 'Circular Economy' for Low Carbon Minerals	De-risking Investments for Low Carbon Minerals
Innovation in Extractive Practices	Resource Efficiency in Mineral Value Chain	Recycling of Low Carbon Minerals	Enabling Carbon Markets
Energy Efficiency in Mineral Value Chain	Innovative Tailings Solutions	Low Carbon Mineral Supply Chain Management	Robust Geological Data Management

World Bank Support to Decarbonize and Reduce Material Footprint of Mining Sector

Climate Smart Mining





## Contact for further information

**Tim Schlösser and Lisa Stellner**  
**Extractives for Development (X4D)**

**giz** Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH  
Friedrich-Ebert-Allee 36  
53111 Bonn  
Deutschland/Germany

**T +49 (0)228 4460 -1250 ; +49(0)228 4460 -3025**  
**E [tim.schloesser@giz.de](mailto:tim.schloesser@giz.de) ; [lisa.stellner@giz.de](mailto:lisa.stellner@giz.de)**