SENSORS FOR MANAGING NATURAL RESOURCES FORCE MEASUREMENT SOLUTIONS.

Natural resources can be defined as resources that occur naturally and exist independently from the actions of humans. Interface's sensors play a crucial role in various natural resource applications by providing real-time data on the forces exerted on the environment. In forestry, these sensors aid in logging by monitoring the forces applied during tree felling and transportation. These sensors are integral to environmental monitoring, ensuring the structural integrity of dams, bridges, and other critical infrastructure. Overall, force sensors help reduce resource depletion, and enhance the sustainable management of our natural environment.

Lumber is a precious natural resource around the world. The U.S. lumber industry originated during the colonial era, when importing timber from the United States saved people in the U.K. from cold winters. Nowadays, timber is mostly used for the production of pulp and paper, as well as furniture. Interface's weighing systems can be used for timber weighing before transportation. The global mining sector has undergone rapid growth in the past two decades. Interface load cells, torque transducers and sensor systems are used to extract metal ores, as there is an increased demand induced by the green energy transition and electrification efforts.

Global agriculture, manufacturing, and energy production all rely heavily on the abundance of natural resources. Accessibility to natural resources provide employment, financial capital and independence around the world. According to McKinsey & Company, nature markets make up \$9.8 trillion worth of goods and services, equivalent to 11% of global GDP. But the explicit value of nature in markets represents a fraction of nature's true value.

> The Global Natural Resource Industry Testing, Inspection, and Certification (TIC) Market is expected to grow by registering a CAGR of about 5.1% during the forecast period. Natural resources continue to be among the significant ingredient of the economic growth of the world.



Sources: Leading countries worldwide based on natural resource value as of 2021. Statista. April, 2021. Timber Assurance. State Foresters. 2023. An open database on global coal and metal mine production. Nature. January 24, 2023.

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Natural Resources