

RIGHT MATERIALS

Eliminating unsafe substances

ABB is phasing out hazardous substances from products and processes wherever feasible

To help us phase out hazardous substances, we have compiled the ABB List of Prohibited and Restricted Substances. The list, which is updated regularly in line with international regulations, applies to all our operations, including goods supplied to ABB, product development, production processes, products, packaging materials, service activities and construction sites.

This list helps our facilities to comply with regulatory requirements and to ensure the protection of human health and the environment along the value chain. As regulatory compliance is

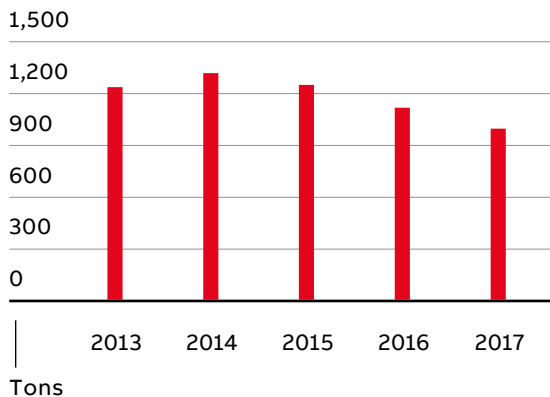
also part of ABB's Global Terms and Conditions for suppliers and our Supplier Code of Conduct, we have developed a companion guide to the list to support suppliers' understanding of their obligations. These obligations include their ongoing partnership with us to identify and prevent "conflict minerals" and restricted substances from entering ABB's supply chain.

In 2017, we refined ABB's 2020 measures and targets for the materials we use. Going forward, our objective is to reduce our emissions of volatile organic compounds (VOCs) by 25 percent by 2020. This target further strengthens our efforts to reduce the use of substances that are harmful to human health and the environment.

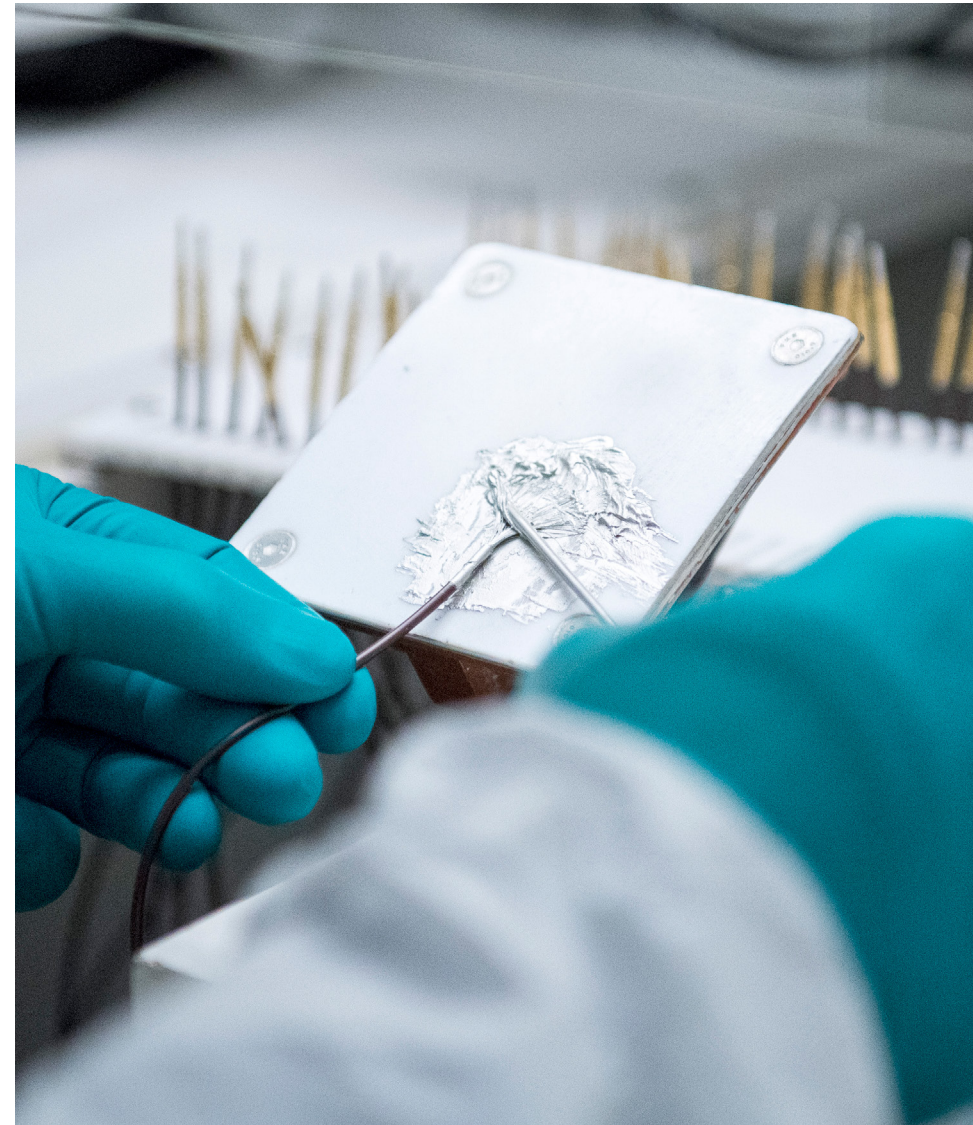
We performed well towards our 2020 target over the past year, as our VOC emissions decreased by 11 percent compared to the year before. We achieved this result through measures such as substituting less harmful products for solvents, recycling solvents in used paint, switching to low-VOC paints, and installing technical equipment to reduce emissions.

In 2017, our most significant initiative was the establishment of a cross-functional material compliance team. Its mission is to facilitate a standardized and systematic approach to the increasingly complex material compliance regulations we face in our global markets, based on best practices. The team assessed current

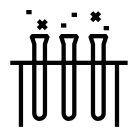
Emissions of volatile organic compounds



■ Total volatile organic compounds (tons)



efforts in the business units, communication with suppliers and customers, standards, guidelines, tools, trainings and internal expert support. The team also worked with ABB's divisions to develop and release new global standards and guidelines, together with new, globally available webinar training packages on the REACH regulation and the RoHS directive.



19%

decrease in VOC
emissions since 2013

In 2017, 48 projects were underway to reduce and phase out hazardous substances and VOC emissions. ABB's network of environmental

specialists collected and shared best practices from these projects to demonstrate how to phase out hazardous substances and the benefits of doing so. Due to the variety of products and manufacturing processes across our organization, hazardous substances are generally reduced on a site-by-site basis.

For example, ABB Ltd. in Stonehouse, Great Britain, phased out hexavalent chromium for the etching of plastic cuvettes, replacing it with acidified potassium permanganate. This change maintained quality levels while reducing the risk to human health and the environment. Similarly, at our traction transformer factory in Geneva, Switzerland, we phased out the hazardous substance m-tolylidene di-isocyanate from the

product lines because of the dangers it poses to human health in the supply chain and the risk of future restrictions on its use.

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Case study
Conflict minerals
[Click here to reveal](#)

